SITE SELECTION PROCESS

PHASE 4A:
SELECTION OF (A) PREFERRED SITE(S)

Tourism Impact Analysis

Prepared for:

Ontario Waste Management Corporation

by

Laventhol and Horwath

December, 1985

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December 16, 1985

Mr. P. Homenuck
Institute of Environmental Research Inc.
81 Sheppard Avenue West, Suite 201
Willowdale, Ontario
M2N 1M4

Dear Mr. Homenuck:

Re: Tourism Impact Analysis of the Six Candidate Siting Options

In accordance with the terms of reference of our engagement, we present on the following pages the results of our assessment of the tourism-related impacts associated with the comparative evaluation by the Ontario Waste Management Corporation of the optimum candidate site option for hazardous waste treatment and disposal facilities.

The findings, projections, conclusions and recommendations contained herein are based on conditions prevailing at the time of our fieldwork, concluded in January, 1985. The assumptions and estimates used in arriving at the projected results are discussed in the body of the report. Since the projections are based on estimates and assumptions which are inherently subject to uncertainty and variation depending upon evolving events, we do not represent them as results that will actually be realized. However, they were prepared based upon information available and/or experience in the industry.

We trust that our findings will contribute to the ultimate selection of the most appropriate siting option for OWMC facilities.

Yours very truly,

LAVENTHOL & HORWATH

This Report was prepared by the Tourism Division of Laventhol & Horwath on behalf of the Institute of Environmental Research.

Mr. Glenn Pincombe, Manager of the Tourism Division, was Project Manager, carrying overall responsibility for this assignment.

Ms. Barbara Lamb, a consultant of the Tourism Division, was responsible for carrying out field research and for preparation of the Final Report.

Ms. Melanie Balfour, a consultant with the Tourism Division, participated in the data collection and interview stages of this assignment.

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EXECUTIVE SUMMARY

PURPOSE OF THE REPORT

The purpose of this Report was to rank each of the six siting options for the OWMC industrial waste management facility, based upon our analysis and identification of tourism-related impacts which could arise as a result of the presence of these facilities.

The tourism-related findings contained in this Report will be utilized in conjunction with those of the other investigations undertaken on behalf of the OWMC to determine the preferred siting option for the OWMC facility.

SCOPE AND METHODOLOGY

In order to rank the siting options based on their potential tourism-related impacts, the following methodology was utilized:

- Information was received from the Institute of Environmental Research regarding the radius around each site within which physical impacts (e.g. noise, odour, traffic) would be expected to be present.

- Tourism-related establishments which could experience impacts as a result of their proximity to each of the sites were identified.

- Interviews were carried out with representatives of these tourism-related establishments as well as with local and regional representatives of the public and private sectors involved with the tourism industry in order to identify any tourism-related concerns they might have regarding the presence of the OWMC facility in their communities and Regions.

- Data were assembled addressing the nature and magnitude of the role which tourism has played in each of the study communities in order to assess the importance of the tourism industry to their economies.

- For each of the candidate sites and siting options, potential tourism-related impacts associated with the introduction of the OWMC facility were identified.

- These impacts were utilized as a basis for the ranking of each candidate site and, subsequently, each siting option. The ranking system entailed designation of each site/siting option as either "preferred", "not significantly different" from the preferred site, "significantly different" from the preferred site or "least preferred".

- The tourism-related tradeoffs associated with selection by the OWMC of any siting option other than the "preferred" were assessed and mitigative measures proposed if and where possible.

- Conclusions were summarized and recommendations made based upon the findings of the study.

PREMISES AND POSTULATES

The following series of premises provided to us by the OWMC were observed over the course of our analyses:

- Our analysis of tourism-related impacts should not encompass consideration of any incident/accident scenarios associated with the OWMC facility;

- Physical "nuisance" impacts associated with the facility should be assumed to be contained within a two-kilometre radius of the site unless indicated otherwise by the OWMC.

- Relevant technical information pertaining to subjects outside of our area of expertise (e.g. visual, noise, transportation, odour impacts) would be made available to us through receipt of other consultants' reports and input.

- Our analyses should consider the direct tourism-related impacts upon individual establishments in immediate proximity to the siting options as well as impacts upon the economy of the communities within which the facilities are to be located.

- Impacts should be quantified wherever possible to assist the overall site selection process. Where precise quantification was not possible, the consultant's professional judgment should be relied upon.

STATUS OF DATA

The findings of this Report are based upon the following types of information:

- Secondary source material pertaining to the economic base of each study community, obtained primarily from regional and local municipalities.

- Secondary source material addressing levels of tourist visitation and tourism development, obtained from Reports prepared by the regional municipalities' Planning Departments, local Official Plans, consultants' reports and Provincial Government documents.

- Secondary source material addressing the impact of image and perception upon selection of vacation destinations by tourists, obtained from periodicals and books written on the subject, and from the interview by telephone of tourism specialists.

- Perceptions and opinions held by private and public sector tourism representatives dealing with tourism in the study communities, obtained primarily through personal interviews.

Secondary source material pertaining to the study communities' economic bases and tourism are felt to be adequately detailed and substantive for the purposes of this Study.

The interviews performed with regional and local public and private sector representatives were designed to elicit any concerns of a tourism-related nature arising from the potential presence of the OWMC facility. The views and opinions obtained from the interview process were recognized as being subjective in nature. They were useful inasmuch as they highlighted contentious issues which would require our attention and further research to assess their validity or inaccuracy.

Where and as necessary, consultants investigating other impacts associated with the OWMC facilities were contacted to clarify concerns beyond the bounds of our expertise. Thus, for example, traffic and noise impacts which could affect tourism establishments were assessed based upon discussions with specialists in these areas and/or review of their Reports.

The unavailability of reliable data relating to a comparable situation, i.e. to a situation where an industrial waste management facility was proposed for a high profile tourism destination, made it difficult to predict the behavioural response of tourists towards a vacation destination hosting such facilities. Consultation with specialists in the field of tourism and perceptual behaviour as well as the review of literature on the subject, while providing useful bases for our analyses, were supplemented with our judgment as professionals in the tourism field in order to meet the requirements of this assignment.

OVERVIEW OF STUDY COMMUNITIES' TOURISM INDUSTRIES

1. Our analyses of the study communities' economic bases and tourism industries indicate that:

   o **Niagara Falls'** tourism industry is a major source of revenues and employment for the community and region. The estimated 13.6 to 15.3 million visitors to the Falls in 1984 are estimated to have generated between $356 to $400 million in income, supporting some 14,855 to 16,720 direct and secondary person-years of employment. Taxes paid by local tourism operators constitute approximately 43% of all business/ commercial taxes and 20% of the City's tax base. Visitors to the Falls originate from throughout the world, an indication of its global significance as a tourist attraction.

o The **Township of West Lincoln** is a primarily agricultural area which does not cater to tourists. While some tourists pass through the Township en route to other destinations, there is only minimal tourism-related infrastructure in place to attract tourist expenditures. There is little evidence to suggest that the Township is intent upon developing a tourism industry.

o The **Town of Milton's** tourism industry would appear to be in its early stages of development. While its recreational resources, events, historical and cultural amenities draw both Halton Region and non-Halton Region residents, there is a low awareness on the part of its large potential primary market of its tourism attributes. The tourism study undertaken on behalf of the Region of Halton by Peter Barnard Associates suggests that its visitors come to Milton on a day-trip basis, spend relatively little money, that the Town's business people do not see tourism as a significant component of their business, and that the area has an underdeveloped tourism potential.

2. Based upon an examination of each site and its surrounding land uses, upon our interviews, technical information received from other consultants working on behalf of the OWMC, and on our assessment of the three study communities' tourism bases, we identified a series of tourism-related impacts pertaining generally to community image and to individual tourism operations. These impacts are summarized on Tables 31 and 32.

3. Based upon these impacts, ranking of each of the six candidate siting options was undertaken utilizing a methodology developed in consultation with the Institute of Environmental Research. The results of this ranking process are summarized below.

CONCLUSIONS AND RECOMMENDATIONS

1. Of the six[1] (candidate) siting options for the OWMC facility, LF-3C in West Lincoln has been determined to be the preferred site from a tourism perspective, i.e. based upon our analyses, its selection for such a facility is expected to result in the least impact upon tourism.

2. Selection of the other West Lincoln option, LF-9C, would not result in significantly greater tourism impacts than LF-3C.

3. Based upon our analysis of the tourism-related impacts which would be incurred as a result of the intended/actual presence of the OWMC facility, the "least preferred" option is LF-1E/PI-27E (the combination of Niagara Falls-based siting options). LF-1E has been ranked as "significantly different" from the preferred option.

4. The remaining siting options involving a combination of Milton sites, have all been ranked as "significantly different"[2] than the "most preferred" West Lincoln siting option. Selection, therefore, of LF-4N/PI-1N or LF-4N/PI-13N, by the OWMC for the facility would result in the possible incidence of major tourism-related impacts, some of them unavoidable, i.e. unmitigable.

5. Should siting options involving either of the Niagara sites or the Milton sites be selected, we recommend that the following types of

---

[1] Originally there were eight siting options. With the elimination by the OWMC of site LF-2N (Mississauga), the number of options is now six.

[2] "Significantly different" for the purposes of this Report, is used in relation to the "most preferred site".

studies be undertaken during the confirmation/mitigation stage of the selection process:

- Empirical market research designed to quantify more precisely the actual tourism-related economic impact which could result based on changes in perception of the communities by their primary and secondary markets, taking into account both non-accident and accident scenarios.

- Determination of the nature and cost of marketing programs which could be implemented to counteract tourism-related impacts associated with the presence of the OWMC facility.

INTRODUCTION

In July 1981, a provincial crown agency, the Ontario Waste Management Corporation (hereafter referred to as OWMC), was created to establish and operate an industrial waste management facility in Ontario. Over the subsequent months of 1981, a five-phase site selection process (see Figure 1) was developed and its implementation initiated:

- **Phase 1**, "Information Gathering", encompassing definition of the magnitude of the industrial waste management problem, consideration of possible treatment technologies, examination of hydrogeologic conditions in Southern Ontario and identification of issues which should be dealt with in subsequent phases, was completed in September 1982. As a result of this phase, it was determined that a physical/chemical treatment plant, incinerator and engineered landfill would be required.

- The purpose of **Phase 2** was to "choose the candidate region and generic technologies". Based upon the findings of **Phase 2** in January 1983, the Golden Horseshoe region of southern Ontario was identified as being the appropriate host area for an OWMC industrial waste management facility.

- **Phase 3A** was initiated in January 1983 and completed in May of that year. Its purpose was to choose candidate areas for the proposed OWMC facility.

- Between May 1983 and March 1984 the process of choosing candidate sites within the areas identified earlier was undertaken **(Phase 3B)**, resulting in the identification of eight candidate sites (see Map 1). It should be noted that while three of the candidate sites were suitable for all three requisite components of the OWMC facility* (i.e. LF-3C, LF-9C and LF-1E), the remaining five sites

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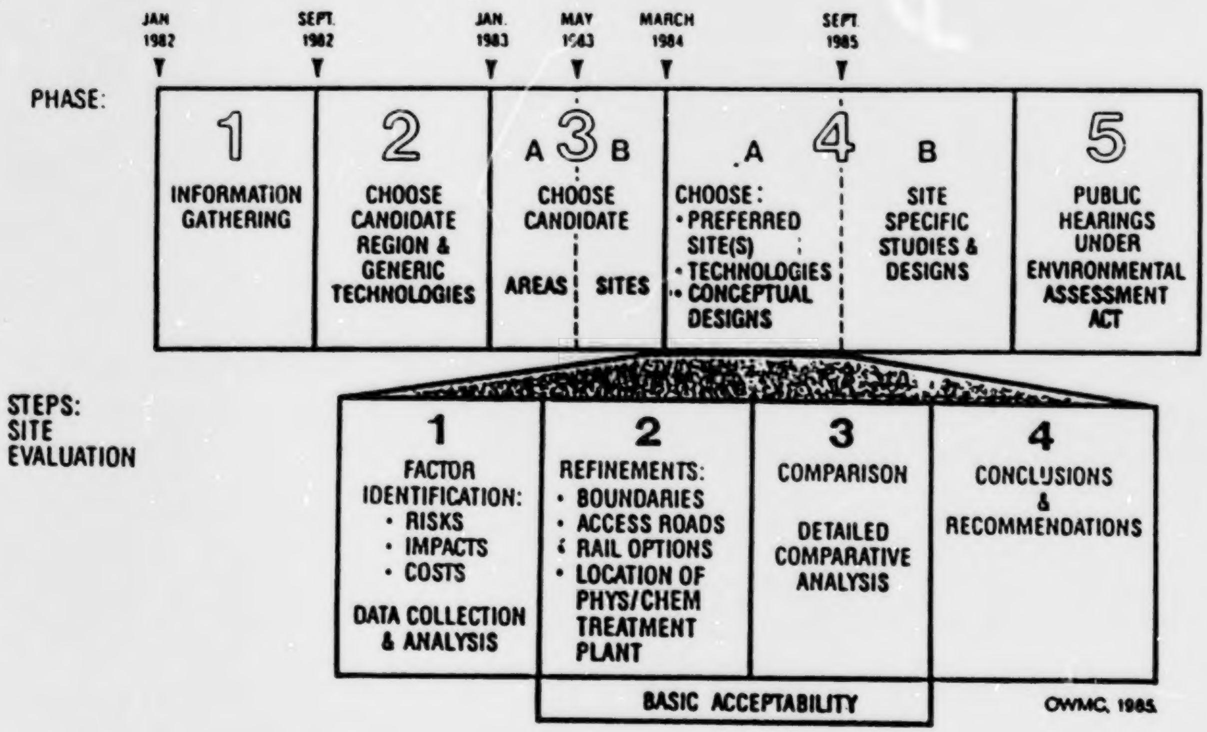
* Landfill, physical chemical treatment plant and incinerator.

FIGURE 1

FACILITIES DEVELOPMENT PROCESS

FIGURE 1

FACILITIES DEVELOPMENT PROCESS


JAN 1982
SEPT. 1982
JAN. 1983
MAY 1983
MARCH 1984
SEPT. 1985
PHASE:
1
INFORMATION GATHERING
2
CHOOSE CANDIDATE REGION & GENERIC TECHNOLOGIES
A 3 B
CHOOSE CANDIDATE
AREAS
SITES
A 4
CHOOSE:
• PREFERRED SITE(S)
• TECHNOLOGIES
• CONCEPTUAL DESIGNS
B
SITE SPECIFIC STUDIES & DESIGNS
5
PUBLIC HEARINGS UNDER ENVIRONMENTAL ASSESSMENT ACT
STEPS: SITE EVALUATION
1
FACTOR IDENTIFICATION:
• RISKS
• IMPACTS
• COSTS
DATA COLLECTION & ANALYSIS
2
REFINEMENTS:
• BOUNDARIES
• ACCESS ROADS
• RAIL OPTIONS
• LOCATION OF PHYS/CHEM TREATMENT PLANT
3
COMPARISON
DETAILED COMPARATIVE ANALYSIS
4
CONCLUSIONS & RECOMMENDATIONS
BASIC ACCEPTABILITY

OWMC, 1985

were suitable only for one or two of the components (see Table 1). Based upon additional analyses these latter "partially integrated" sites were combined in such a way that all three components would be accommodated. The **siting options** which were derived from this source are noted below:

- LF-4N/PI-1N
- LF-4N/PI-13N
- LF-2N/PI-1N
- LF-2N/PI-13N
- LF-3C
- LF-9C
- LF-1E
- LF-1E/PI-27E.

- In March 1984, **Phase 4A** was undertaken. Its aim was to "choose the preferred site(s), technologies and concept designs". To this end, numerous studies were commissioned by the OWMC addressing the diverse types of impacts, risks and costs which could possibly be experienced by the study communities and regions associated with each siting option.

  This Report, which evaluates and ranks each site and siting option based on tourism impacts, forms a part of Phase 4A.

  As a result of studies undertaken in Phase 4A, LF-2N* has been eliminated for technical reasons, thus reducing the number of candidate sites to seven, and the number of siting options to six.

- Site-specific studies and design will be undertaken in Phase 4B to assess impacts and to identify those mitigative measures which can be instituted to reduce/eliminate impacts, costs and risks associated with the preferred site(s).

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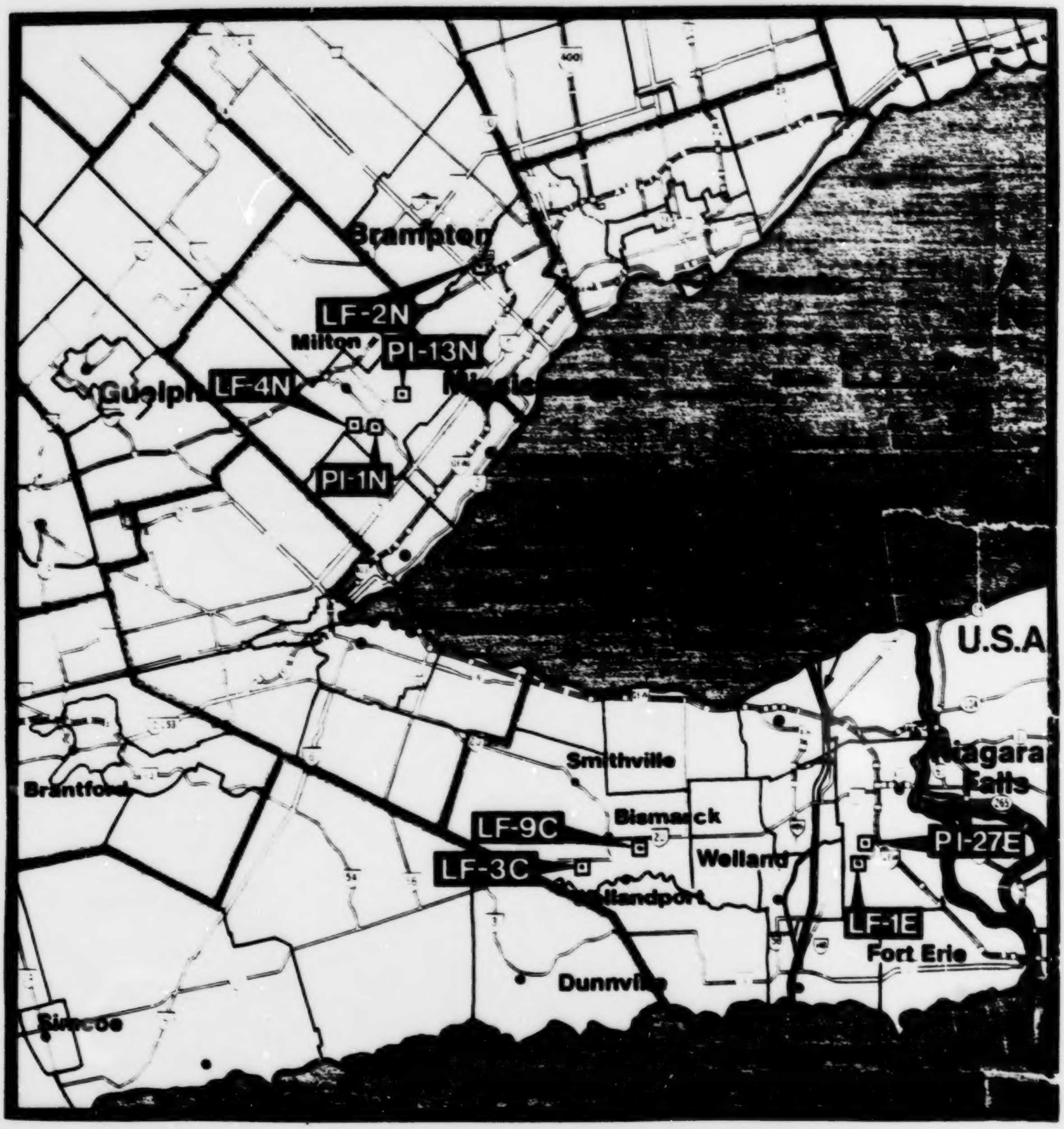
* See M.M. Dillon Ltd., 1985, Site Selection Process, Phase 4A: Selection of a Preferred Site(s) - Site Selection

MAP 1

CANDIDATE SITES' LOCATION


Brampton
LF-2N
Milton
PI-13N
Guelph
LF-4N
PI-1N
U.S.A
Smithville
Niagara Falls
Brantford
LF-9C
Bismarck
LF-3C
Welland
Wellandport
PI-27E
LF-1E
Fort Erie
Dunnville
Simcoe

Source: Ontario Waste Management Corporation. March, 1984

TABLE 1

CANDIDATE SITES: SUITABILITY FOR WASTE TREATMENT COMPONENTS

Site Name	Location	Site Suitability for Waste Treatment Components: Landfill	Physical/ Chemical	Incinerator	Integrated
LF-2N	Mississauga	x	x		
LF-4N	Milton	x			
PI-1N	Milton		x	x	
PI-13N	Milton		x	x	
LF-3C	West Lincoln	x	x	x	x
LF-9C	West Lincoln	x	x	x	x
LF-1E	Niagara Falls	x	x	x	x
PI-27E	Niagara Falls		x	x	

LF - Landfill
PI - Physical/Chemical Treatment Plant & Incinerator
Integrated: Capable of hosting all three waste treatment components

Source: OWMC Phase 3 Report: Facilities Development Process (March, 1984) p. 70.

As noted above, this Report is a part of Phase 4A. Its purpose and the role it will play in the site selection process are described below.

PURPOSE OF THE STUDY

In June 1984, Laventhol & Horwath was commissioned by the Institute of Environmental Research (IER) on behalf of the Ontario Waste Management Corporation to undertake a study whose aims would be twofold:

- To assess the magnitude and nature of local/regional tourism-related impacts which would arise as a result of the locating of the OWMC facility on each of the siting options identified by the OWMC; and

- To rank these options based on the severity of potential impacts which could be experienced by the tourism industry.

To facilitate understanding of the role which this study will play in the selection of (a) preferred siting option(s) for the OWMC facility, a brief description of the OWMC's siting options comparison process **(Phase 4A)** follows.

SITING OPTIONS COMPARISON PROCESS

Selection of the most appropriate site(s) for the OWMC facility will be made by the OWMC upon completion of numerous studies addressing the diverse types of impacts, risks and costs which could possibly be experienced by the study communities and regions.

The study which follows ranks the six candidate siting options based upon the potential nature and magnitude of impacts upon tourism associated with the presence of the OWMC facility. Its findings along with the findings of other investigations will form the basis for selection of a siting option by the OWMC.*

REPORT FORMAT

Our analyses are presented in seven Sections:

Section I, Methodology, presents the approach which was used to assess tourism-related impacts associated with each of the seven sites.

Section II, Candidate Sites Description, describes the physical and land-use characteristics of each of the seven sites and their immediate surroundings.

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* See M.M. Dillon Ltd., Site Selection Process, Phase 4A: Selection of a Preferred Site(s) - Site Selection, 1985/86

Section III, Community Profiles, provides a detailed examination of the socio-economic and tourism bases of each of the study communities associated with the seven sites.

Section IV, Interviews, outlines the findings of approximately fifty personal interviews carried out by the consultant with tourism-related public and private sector officials.

Section V, Sites Impact Analysis, provides an assessment of the potential magnitude and nature of tourism-related impacts associated with each of the candidate sites.

Section VI, Siting Options Comparative Analysis and Rating, uses the findings of Section V as a basis for determining the preferred siting option.

Section VII, Conclusions and Recommendations, includes a summary of the major findings of our tourism impact analysis and our recommendations.

SECTION I
METHODOLOGY

CONSIDERATIONS CONTRIBUTING TO SELECTION OF THE METHODOLOGICAL APPROACH

Initial Postulates

The dual purposes of our study, as noted in the preceding Introduction, are to project the tourism-related impacts which would occur as a result of the introduction of the OWMC facility to a site or combination of siting options, and based upon these projections, to provide a ranking of siting option(s) for such a facility from a tourism perspective.

The methodological approach which we have developed to fulfill the above-noted purposes reflects recognition of the following considerations:

- While the prediction of potential tourism-related impacts can to some extent be founded upon technical information and data (e.g. the impact of noise upon a tourism establishment within "x" kilometres of a site), our methodology has been designed to permit assessment of impacts arising from changes in human perceptions, which are by their very nature, difficult to predetermine or quantify;

- Our methodological approach has, to some degree, been shaped by the need to incorporate the results of the tourism study into an overall assessment of the relative differences among the siting options. The analysis which was undertaken is considered adequate for comparative evaluative purposes.

Premises

Design of our methodology was based not only upon the above-noted considerations, but upon a series of study assumptions we were instructed to observe provided to us by the OWMC and by other members of the site selection team. These assumptions are noted below:

- Since facility accident scenarios are beyond our terms of reference, our analysis of potential tourism-related impacts should not include consideration of any incident/accident scenarios at this time, i.e. either on-site or transportation-related;

- All physical impacts associated with the on-site OWMC facility itself would be contained within a two-kilometre radius of the sites' boundaries;

- Technical information relating to the projected nature and magnitude of visual, traffic and air dispersion impacts would be provided to us to be utilized in our analyses if and as necessary;

- Our analysis should consider direct impacts upon individual tourist facilities in the immediate proximity of the site, within a two-kilometre radius, and impacts upon the economy of the communities within which the facility is to be located. Such a facility would be identified for us by the Institute of Environmental Research. In addition, we were invited to include any other operations we felt would be germane to the purpose of our study;

- Impacts should be quantified wherever possible to assist and support the overall site selection process. Where precise quantification was not possible, the consultant's professional judgment should be relied upon;

- We should assume that waste will not be transported by rail and will not be brought from the U.S. for treatment.

METHODOLOGICAL APPROACH

In light of the initial considerations and assumptions noted above, the methodology utilized to rank the six candidate siting options from a tourism perspective involved four primary stages:

- Stage I - Data Collection
- Stage II - Interviews
- Stage III - Comparative Analysis
- Stage IV - Conclusions and Recommendations

A description of each of these tasks follows:

Stage I: Data Collection

Four distinct data collection tasks were undertaken to provide a basis for subsequent evaluation of the seven candidate sites:

(a) Analysis of each site encompassing consideration of land use patterns within a two-kilometre radius and identification of tourism-related operations along access routes;*

(b) Assembly of information pertaining to the socio-economic base of the communities/regions associated with each site;

(c) Assembly of information pertaining to the tourism industry of each potential community/region, to facilitate determination of the importance of tourism to the socio-economic base (identified in (b), above);

(d) Collection of data from other consultants engaged by the OWMC, pertaining to the nature and geographic extent of impacts projected to result from the operation of the OWMC facility on each of the candidate sites. Information addressed odour, dust, noise, visual, traffic and water quality impacts.

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* Data collected by Laventhol & Horwath pertaining to the access roads were not used in any decisions relating to access routes or as an access road factor in the comparative evaluation of siting options.

Stage II: Interviews

Approximately fifty personal interviews were carried out with tourism-related public and private sector representatives associated with the potential study communities/regions to gain a deeper understanding of the nature and scope of the respective tourism industries and of local and regional views and concerns regarding the proposed OWMC facility.

Stage III: Comparative Analysis

The comparative analysis utilized to rank the siting options from a tourism perspective involved a two-step process:

- o Tourism-related impacts associated with each **site** were evaluated and the **sites** ranked on a scale of "preferred" down to "least preferred".
- o Based upon the first step, tourism related impacts associated with each **siting option** were evaluated and the siting options ranked on a scale of "preferred" down to "least preferred".

Sites/siting options which were neither "preferred" or "least preferred" were ranked under one of the two following categories:

- o "Not significantly different" than the "preferred" site/siting option in terms of tourism impacts.
- o "Significantly different" than the "preferred" site/siting option. This rank was assigned where the magnitude/severity of impact was considered to be sufficiently greater than the "preferred" option to warrant a "significantly different" designation.

Stage IV: Conclusions and Recommendations

Based upon the analyses described above, a series of conclusions and recommendations was prepared regarding our comparative evaluation of the siting option(s) for the OWMC facility.

SUMMARY

The methodology used to rank the six candidate siting options with respect to anticipated tourism impacts was developed taking into account a number of key considerations and operating premises. Four primary tasks, i.e. data collection, interviews, data analysis and preparation of conclusions and recommendations, were undertaken to fulfill the purpose of the assignment. The remaining sections of this Report contain the findings associated with each of these four tasks.

SECTION II
CANDIDATE SITES DESCRIPTION

INTRODUCTION

The seven candidate sites for the OWMC facility are located in three areas within the Golden Horseshoe region of southwestern Ontario around the western periphery of Lake Ontario, i.e. in Milton, West Lincoln and Niagara Falls.

In order to gain a more complete understanding of specific site characteristics within the greater area context, members of the consulting team visited each of the seven candidate sites and performed site analyses. Our analyses encompassed the following tasks:

- Notation and description of the topographical features and land use activities on and off-site;*
- Analysis of potential for future tourism development on-site;
- Notation of all tourism-related establishments and natural features within a two-kilometre study area;** and,
- Notation and description of all existing tourism-related establishments and natural features on proposed access routes to each site.**

The purpose of this section is to provide descriptions of the seven sites, their surrounding study areas of two kilometres and transportation access routes with particular respect paid to existing tourism-related operations. A description of each site and its surrounding land uses follows.

---

* These analyses were checked against the findings of Gartner Lee Associates Ltd., Site Selection Process, Phase 4A: Selection of (a) Preferred Site(s), 1985.

** Institute of Environmental Research Inc. (IER), 1985, Site Selection Process. Phase 4A: Selection of a Preferred Site(s) - Social Analysis.

CITY OF NIAGARA FALLS

LF-1E

This candidate site is intended for a fully integrated facility incorporating landfill, physical/chemical treatment plant and incinerator components and just a landfill in combination with PI-27E.

Location

Site LF-1E is located to the southwest of the built-up area of the City of Niagara Falls, i.e. south of Carl Road and west of Crowland Road. This site is further south than the other Niagara Falls site, P1-27E. The highly developed tourist-commercial area located near the Falls is approximately six kilometres north of this site.

Current Land Use

Site LF-1E is characterized by a flat to gently rolling topography. Some large areas of mature woodlot cover the site area and are interspersed with bush, open areas and agricultural land. Presently the site is used for agricultural and residential purposes. A ConRail line defines the boundaries of the site. Generally, the site offers no scenic, topographical or natural vegetation attributes of any tourism-related significance.

The site is far removed from the developed tourist commercial area in Niagara Falls, and in our judgment, has virtually no tourism potential.

Surrounding Land Use

Site LF-1E is in what might be described as the urban fringe of Niagara Falls, and is characterized by agricultural land interspersed with commercial, industrial and residential lands.

Within the bounds of the two-kilometre study area of the site no tourism-related establishments were identified.

Preferred Access Route

The preferred route for this site is as follows:

- West on Biggar Road; south on Crowland Road; west on Carl Road to LF-1E.

There are no tourism-related establishments located along this access route.*

P1-27E

This site would accommodate the physical/chemical treatment plant and incinerator components only.

Location

Site P1-27E is 188 hectares in size and is located west of Montrose Road (Regional Road 98), north of Biggar Road (Regional Road 47). It is to the northeast of site LF-1E, closer to the Q.E.W. and is within the urban shadow of the City of Niagara Falls.

Current Land Use

The site has a flat to gently rolling topography and is presently used for agricultural and limited residential purposes. A ConRail line runs diagonally through the site from southwest to northwest. The site is designated for future industrial use which would supplement the industrial lands located to the north and west of the site.

Again, the site offers no scenic attributes of significance to tourism.

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* The site would, however, be visible to people visting the Skylon and Minolta towers, several kilometres away.

Surrounding Land Use

Site P1-27E is within two kilometres of the Q.E.W., which is itself, lined with commercial development.

Potentially tourism-related facilities identified within two kilometres of the site were:

- Niagara Meadows Holiday Park - located on the northeast side of the Q.E.W. and the Welland River. Open year round, the campground has approximately 300 campsites and a full array of services including picnic grounds, swimming pool, recreational hall, washrooms and laundromat. Its peak period is July/August, and the average length of stay is a few days. However, some visitors stay for periods of up to a month. According to its owners, the facility receives considerable repeat visitation;

- Montrose Hotel - a motel across the Q.E.W. from the Niagara Meadows Holiday Park;

- Grassy Brook Park - located on the southeast corner of Chippawa Creek and the Q.E.W. This park is owned by the City of Niagara Falls and used principally for non-tourism purposes, i.e. by the Boy Scouts of Canada, Niagara District Council, for summer camps. Grassy Brook curves around the perimeter of the park and feeds into Chippewa Creek. The brook and park are known as being good wildlife habitats and are used for nature walks. Occasionally campers passing through will use the park for overnight stays.

Preferred Access Route

- From Q.E.W. - west on Biggar Road (Regional Road 47) to P1-27E.

There are no tourism-related facilities located on this access route. The OWMC facility would be visible from the Q.E.W. and from the Minolta and Skylon viewing towers.

TOWNSHIP OF WEST LINCOLN

LF-3C

This candidate site is proposed to be a fully integrated site with landfill, physical/chemical treatment plant and incinerator.

Location

The 206 hectare site is located southwest of Bismarck in the heart of the Niagara Region, i.e. south of Elcho Road and east of Vaughan Road in the Township of West Lincoln.

Current Land Use

The landscape of this site is typical of rural southwestern Ontario, with farmhouses and barns interspersed with fields used for agricultural purposes.

The site was not found to have any significant tourism potential.

Surrounding Land Use

There are no tourism-related facilities within two kilometres of the site. During our field investigations we surveyed a greater distance from the site and the Chippewa Creek Conservation Area, approximately two to three kilometres to the southeast of the site.

Part of the Niagara Region Conservation Authority, the Chippewa Creek Conservation Area is 148 hectares and provides recreational opportunities which are primarily enjoyed by people coming from a thirty-mile radius. While the Conservation Area has some attractive features, it serves a primarily local and regional market rather than a tourist market.

Preferred Access Route

- From the Q.E.W., south on Vineland Townline Road (Regional Road 24); west on Highway 20; west on Regional Road 65 from Bismark; south on Krick Road to LF-3C.

There is one tourism-related facility along the access route which should be noted:

- **Balls Falls Conservation Area** - located on Regional Road 24. Managed by the Niagara Conservation Authority, Balls Falls is an 88 hectare site which promotes an historic theme with a Pioneer Village, Thanksgiving and Sugarbush festivals, educational programs, geologic and historic appreciation, as well as recreational uses such as hiking, camping and some winter sports. There are an estimated 40,000 to 45,000 visitors on an annual basis to Balls Falls, an estimated 40% of whom are from beyond the Niagara Region.

LF-9C

This site is proposed to be fully integrated, with landfill, physical/chemical plant and incinerator components.

Location

Approximately 135 hectares in size, the site is located to the northeast of site LF-3C on the south side of Highway 20, east of Bismarck.

Current Land Use

The site is presently being used for agricultural purposes. There are six residences on-site. The site is flat to gently rolling with some mature stands of trees, scrub brush and hedgerows along the perimeter of the site.

The site was not found to have significant tourism potential.

Surrounding Land Use

Within two kilometres of the site there is one establishment which is tourism-related:

- Silverdale Sports Centre - a club approximately 20 hectares in size located to the northwest of site LF-9C. Approximately 1,000 members come from the Golden Horseshoe area, southern Ontario and Upstate New York. Facilities include pistol, rifle, shotgun and bow and arrow ranges, horseshoes and darts.

  In addition, there is a proposed trailer park on the north side of Highway 20 just east of LF-9C. The site has been approved for trailer park purposes. However, its likelihood of implementation is not known at this time.

Preferred Access Route

- From Q.E.W., south on Vineland Townline Road (Regional Road 24); west on Highway 20 south on Schram Road to LF-9C.

TOWN OF MILTON

PI-1N

Site PI-1N is proposed to be a partially integrated site, with physical/chemical treatment plant and incinerator.

Location

The site, which covers an area of 175 hectares, is on the southwest corner of Britannia Road and Highway 25 (Bronte Road), south of the urban centre of Milton and roughly equidistant from the Q.E.W. and Highway 401.

Current Land Use

The site is gently sloping with stands of mature trees, scrub growth and hedgerows scattered along its perimeter. Currently, the site is used for agricultural and residential uses.

The site was not found to have significant tourism potential.

Surrounding Land Use

The area is predominantly agricultural in nature with intermittent residential lots also in evidence.

No potential tourism-related facility was identified within two kilometres of site PI-1N.

Preferred Access Routes

- From Highway 401 - south on Fourth Line Road; west on Britannia Road; south on Highway 25 to PI-1N;
- From Q.E.W. - north on Highway 25 to PI-1N.

These access routes include arterial routes along which there is some commercial strip development. No facility was identified as being potentially tourism-related.

LF-4N

Site LF-4N is proposed to be a partially integrated site accommodating a landfill facility.

Location

The 168-hectare site is located to the west of site PI-1N, at the northwest corner of Britannia Road and Tremaine Road.

Current Land Use

The gently rolling terrain is used for predominantly agricultural purposes. There is also a small wooded area on the east side of the site.

The site was not found to have any significant tourism potential.

Surrounding Land Use

The surrounding countryside is agricultural with gently rolling terrain. Within two kilometres of the site no tourism-related facility was identified.

Outside of the two-kilometre zone, to the northwest, is the Rattlesnake Point Conservation Area, which is within the Halton Region Conservation Authority. Rattlesnake Point comprises approximately 230 hectares on a detached part of the Niagara Escarpment which rises 300 feet above the surrounding countryside. Forty-five of these acres are developed for recreational uses, including picnic shelters, hiking, rock climbing, camping, cross-country skiing and snowshoeing. There are also escarpment lookout points from which long distance scenic views of the countryside may be enjoyed. These views encompass site LF-4N. Approximately 40% of users come from beyond the Region.

Preferred Access Routes

The access routes to Site LF-4N are similar to Site PI-1N:

- From Highway 401 - south on Fourth Line; west on Britannia Road to LF-4N; or,

- From O.E.W. - north on Highway 25; west on Britannia Road to LF-4N.

No potential tourism-related facility was identified as being on access routes to Site LF-4N.

PI-13N

Site PI-13N is proposed to be partially integrated, with physical/ chemical treatment plant and incinerator.

Location

The site is 170 hectares in area and is located to the east of the other potential candidate sites in Milton, between the fifth and sixth lines, south of Britannia Road West.

Current Land Use

The site is presently used for agriculture with some residential development occurring along the roads at the site's periphery. The area is relatively flat and quite open with only minor treecover. There are no tourism-related facilities located on-site. There was no significant tourism potential identified for the site.

Surrounding Land Use

The surrounding countryside is generally agricultural in nature with some residential development and a topography which is flat to gently rolling.

No tourism-related facility was identified within two kilometres of Site PI-13N.

Preferred Access Route

- From Highway 401 - south on Fourth Line; east on Britannia road; south on Fifth Line to PI-13N.

SECTION III
COMMUNITY PROFILES

INTRODUCTION

Tourism-related impacts associated with the introduction of the OWMC facility to each of the seven candidate sites may affect the socio-economic bases of the study communities, i.e. the City of Niagara Falls, the Town of Milton and the Township of West Lincoln.

Socio-economic profiles of these communities and the role which tourism plays within their local economies is presented in this section. Such profiles will provide a basis for determining the relative importance of the tourism industry to the communities and their vulnerability to any tourism-related impacts associated with the introduction of the OWMC facility.

CITY OF NIAGARA FALLS

Introduction

Boasting one of the world's best known and spectacular natural attractions, Niagara Falls is known, first and foremost, as a tourism centre. Notwithstanding this image, the manufacturing and service sectors are major contributors to the local and regional economies.

A description of the socio-economic base and the role which tourism plays within Niagara Falls follows.

Socio-Economic Base

Location

The City of Niagara Falls is situated on the west side of the Niagara River which acts as an international border between the United States and

TABLE 2

NIAGARA FALLS POPULATION PROJECTIONS

1982	1990	2000
70,563	72,265	73,463

Source: City of Niagara Falls Official Plan Update (Draft), June 1984

TABLE 3

PROJECTED DEMOGRAPHIC STRUCTURE: NIAGARA REGION

	1981		1986		1991		1996		2001	
	000's	%	000's	%	000's	%	000's	%	000's	%
0-14	79.5	21%	74.1	19%	72.6	18%	71.7	17%	67.0	16%
15-19	36.8	10%	30.9	8%	26.7	7%	24.0	6%	25.4	6%
20-34	96.8	25%	107.4	27%	108.2	27%	98.3	24%	85.6	21%
35-49	64.7	17%	72.8	18%	84.6	21%	99.2	24%	109.6	26%
50-64	60.1	16%	61.3	16%	58.7	14%	61.2	15%	68.9	16%
65+	41.6	11%	46.8	12%	54.4	13%	59.0	14%	61.1	15%
	379.5	100%	393.3	100%	405.2	100%	413.3	100%	417.6	100%

	% Change 1981 - 2001 in Proportion of Population in Each Age Category
0-14	- 24%
15-19	- 40%
20-34	- 16%
35-49	+ 53%
50-64	-
65+	+ 36%

Source: 1976 Census data base; Projections - Treasury and Economics Ontario

Canada. Within the fourth largest Metropolitan Region of Ontario, i.e. the Regional Municipality of Niagara, the City is also part of the Golden Horseshoe, Canada's industrial heartland. The City is bisected by the Queen Elizabeth Way, which provides direct access to Hamilton and Metropolitan Toronto. In addition, two industrial railways (Consolidated Rail Corporation and Canadian National Railways) and VIA Rail link Niagara Falls to Southern Ontario's major cities (Hamilton, Toronto, Windsor) and to the United States.

Demographic Profile

Niagara Falls, a city of approximately 71,000 people, accounts for some 19% of Niagara Region's population base.

Tables 2, 3, 4 and 5, showing demographic projections for Niagara Falls, Niagara Region and Ontario as a whole, indicate the following trends:

- Niagara Falls and Niagara Region are projected to grow to the year 2001 at a lower rate than for the Province as a whole, with the City growing at less than half the rate of the region.
- There will be a dramatic increase in the 35 years and over age group.
- The aging of the population will be more pronounced within Niagara Region than for the Province as a whole.

Economic Base

The economic base of Niagara Region is a varied one. In Niagara Falls employment is attributable in large part, to the service sector (of which tourism is a part) and the manufacturing of finished products, chemicals and abrasives. St. Catharines-Thorold's major employers are automobile and paper product-related. Other centres are characterized by metal refining (Port Colborne), specialty steel and steel pipe production

TABLE 4

PROJECTED DEMOGRAPHIC STRUCTURE: ONTARIO

% OF POPULATION BY AGE GROUP

Age	1981		2001		% Change in Proportion of Population in Each Age Category
	000's	%	000's	%	
0-14	1,889	21.9	1,715	17.0	- 22%
15-19	810	9.4	635	6.3	- 33
20-34	2,243	26.0	2,088	20.7	- 20
35-49	1,544	17.9	2,542	25.2	+ 41
50-64	1,268	14.7	1,735	17.2	+ 17
65+	871	10.1	1,371	13.6	+ 35
	8,625	100.0	10,086	100.0	

Source: Ontario Ministry of Treasury & Economics

TABLE 5

COMPARISON OF AVERAGE ANNUAL POPULATION GROWTH RATE PROJECTIONS

	1981 to 1991*	1991 to 2001	1981 to 2001
Niagara Falls*	.30%	.17%	.23%
Niagara Region	.68%	.31%	.50%
Ontario	N/A	.85%	.85%

* 1982 to 1990, 1990 to 2000, 1982 to 2000

Source: Derived from Tables 1, 2 and 3.

(Welland) and aircraft parts (Fort Erie). Agriculture, which has stimulated the fruit processing and wine industries, is also an important component of the industrial base.

The following table provides a breakdown of employment in the Region. From it, the importance to Niagara Falls of manufacturing and the service sector (of which tourism is a part) is particularly evident.

TABLE 6

EMPLOYMENT BY SECTOR: REGION OF NIAGARA (1981)

(%)

	Agriculture	Manufacturing	Services*	Other	Total**
Niagara Falls	1.0	24.5	63.6	10.9	100.0%
West Lincoln	30.5	13.7	37.3	18.5	100.0%
Rest of Region	4.2	31.7	52.2	12.0	100.0%
Total	4.1	30.0	54.1	11.9	100.0%

* Includes tourism
** May not add due to rounding

Source: 1981 Census of Canada

As Table 7 demonstrates, retail sales and personal disposable income have been consistently above the Canadian average during the period from 1979 to 1983. However, the population growth rate has declined from 11% to 1.4% per decade, the substantial shift attributable to out-migration and lower fertility rates.

With respect to per capita personal disposable incomes, in 1981 the area ranked 15th out of 25 with major urban centres of 100,000+ populations in Canada and therefore has a lower than average personal disposable income:

TABLE 7

METROPOLITAN ST. CATHARINES - NIAGARA MARKET DATA

	1978	1979	1980	1981	1982	1983
Market (Retail Sales)	2% above national average	1% below national average	2% below national average	2% below national average	1% above national average	5% above national average
% Canadian Total	1.33	1.29	1.27	1.26	1.26	1.29
Per Capita Retail Sales	$2,920	$3,168	$3,514	$3,749	$4,154	$4,358
Personal Disposable Income	8% above national average	7% above national average	6% above national average	5% above national average	6% above national average	3% above national average
% Canadian Total	1.41	1.39	1.38	1.35	1.31	1.28
Per Capita	$7,130	$7,730	$8,505	$9,355	$10,349	$11,223
Population Growth Rate	11% per decade	7% per decade	6.4% per decade	6.4% decade	1.4% per decade	2.4% per decade
Relation to Ontario Average	4% below provincial average	3.1% below provincial average	3% below provincial average	3% below provincial average	7.3% below provincial average	7.3% below provincial average
Relation to Canadian Average	2% below national average	3% below national average	3.7% below national average	4.7% below national average	10.6% below national average	9.6% below national average
% Canadian Total	1.31	1.30	1.30	1.28	1.24	1.23
% Change	+7.77 71-78/	+2.05 76-79/	+2.51 76-80/	+2.97 76-81/	+0.85 76-82/	+0.9 81-83

Source: Financial Post Canadian Markets, 1979 to 1984

TABLE 8
1981 PERSONAL DISPOSABLE INCOME: METROPOLITAN AREAS AND CITIES
(POPULATION 100,000+)

	Per Capita $		Per Capita $
Calgary	12,475	Victoria	10,558
Edmonton	11,885	**St. Catharines-Niagara**	**10,349**
Ottawa-Hull	11,864	Montreal	10,287
Vancouver	11,797	Thunder Bay	10,216
Toronto	11,785	Kitchener	10,108
Regina	11,684	Halifax	9,961
Saskatoon	11,648	Quebec	9,715
Hamilton	11,219	Chicoutimi-Jonquiere	9,364
Winnipeg	11,201	Trois-Rivieres	8,995
Sudbury	10,921	Sherbrooke	8,709
Windsor	10,779	Saint John	8,667
London	10,583	St. John's	7,376
Oshawa	10,570		

Source: Financial Post Canadian Markets, 1983, page 23

As Table 9 reveals, unemployment in the Niagara Falls-St. Catharines was particularly high in 1982 and 1983 relative to national rates. These high rates of unemployment over the 1981-83 period may have been attributable to the recession and to the local economy's linkage to the automobile industry. In addition, the area's employment is largely seasonal, with the tourism, food processing and shipping industries becoming relatively dormant during the November to April winter season.

TABLE 9

NIAGARA FALLS - ST. CATHARINES AREA

ACTUAL UNEMPLOYMENT RATES*

	1976	1977	1978	1979	1980	1981	1982	1983	1984
January	11.4%	8.5%	11.4%	13.6	10.1	10.1	15.6	21.7	17.0
February	8.6	9.6	12.0	14.5	11.9	12.0	12.7	19.8	13.8
March	9.9	10.2	13.2	7.9	15.3	10.8	11.7	17.0	13.9
April	9.7	8.2	11.7	11.5	13.2	8.7	11.4	15.1	12.3
May	9.0	8.1	7.5	7.9	11.0	8.2	12.3	15.6	11.8
June	8.6	9.4	9.9	6.7	10.5	8.9	9.7	13.6	10.1
July	8.9	8.8	8.6	7.1	7.3	8.0	12.1	13.1	9.3
August	8.3	9.3	6.5	7.0	7.3	10.7	12.4	13.6	8.5
September	4.1	8.2	7.8	8.8	5.4	9.3	13.9	16.1	7.9
October	8.3	7.7	9.7	9.2	5.7	8.9	14.8	15.9	9.7
November	7.1	9.4	9.1	8.2	7.4	9.1	19.1	14.7	10.3
December	8.5	10.3	9.0	9.4	8.2	11.4	20.2	13.8	9.3
Annual Average	8.5%	9.0%	9.7%	9.3%	9.4%	9.7%	13.8%	14.7%	11.2

* Not seasonally adjusted

Source: Canada Employment Centre, St. Catharines, Ontario

The apparent recovery indicated by 1984 figures may be related to the general upturn in the automotive sector and in the economy as a whole.

Socio-Economic Outlook

Niagara Region is projected to undergo a pronounced shift in the demographic structure to the older age groups. As indicated by Tables 7 and 10, the population growth rate for St. Catharines-Niagara has decreased quite dramatically and is projected to remain at a lower level than provincial and national averages. With low growth trends, there is no evidence to suggest that the area will experience any notable growth of its economic base in the near future.

Over the 1983 to 1988 period, personal disposable income and retail sales are projected to remain slightly higher than the national average and somewhat lower than for Ontario as a whole. Again, these projections appear to indicate a stable, non-growth outlook for St. Catharines-Niagara.

Niagara Falls Tourism Industry Overview

Visitation

Niagara Falls is one of North America's premiere natural attractions drawing millions of tourists each year. While estimates vary as to the exact number of people annually visiting the Canadian Falls, Niagara Parks Commission vehicle counts (See Table 11) provide a reasonable basis for placing visitation over the April to October 31 period at somewhere between 10.5 and 13.5 million people over the past five years.*

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* It may be suggested that Niagara Parks Commission figures do not include tourists exclusively visiting attractions outside of the Commission boundaries and therefore underestimate total visitation. However, it may also be argued that vehicle counts in the Park overestimate visitation by double-counting vehicles going in and out of the park more than once and by counting Niagara Falls residents.

TABLE 10

POPULATION, PERSONAL DISPOSABLE INCOME AND RETAIL SALES

PROJECTIONS FOR SELECTED CENSUS AREAS

	POPULATION				PERSONAL DISPOSABLE INCOME				RETAIL SALES			
					1983		1988		1983		1988	
	1983	1985	1988	Percent Change 88/83	$ Millions	$ Per Capita	$ Millions	$ Per Capita	$ Millions	$ Per Capita	$ Millions	$ Per Capita
St. Catharines-Niagara	307	309	311	+1.3%	3,446	11,223	5,037	16,185	1,338	4,358	1,956	6,285
Hamilton	550	557	566	+2.9%	6,663	12,114	9,893	17,478	2,404	4,371	3,570	6,303
Toronto	3,093	3,187	3,328	+7.6%	39,267	12,693	60,911	18,305	14,317	4,628	22,208	6,674
Ontario	8,816	8,993	9,251	+4.9%	102,140	11,586	153,044	16,544	38,528	4,370	58,302	6,302
Canada	24,887	25,388	26,109	+4.9%	270,037	10,851	409,281	15,676	103,365	4,153	156,615	5,499

Source: Financial Post Canadian Markets (1984)

TABLE 11

ESTIMATE OF NIAGARA FALLS TOURIST VISITATION

(1969-1984)

Year	Vehicles Entering QVP*	Index	Total Visitors[1] April 1 to October 31		Total Visitors[1,2] Annually	
			People Per Car 3.2**	People Per Car 3.6**	People Per Car 3.2**	People Per Car 3.6**
1969	3,368,439	100.0	10,780,000	12,125,000	11,980,000	13,470,000
1970	3,535,407	105.0	11,315,000	12,725,000	12,570,000	14,140,000
1971	3,508,133	104.2	11,225,000	12,630,000	12,470,000	14,000,000
1972	3,360,876	99.8	10,750,000	12,100,000	11,950,000	13,440,000
1973	3,385,319	100.5	10,830,000	12,190,000	12,030,000	13,540,000
1974	3,287,770	97.6	10,520,000	11,835,000	11,690,000	13,150,000
1975	3,198,905	95.0	10,235,000	11,515,000	11,370,000	12,790,000
1976	3,228,098	95.8	10,330,000	11,620,000	11,480,000	12,910,000
1977	3,028,956	89.9	9,690,000	10,900,000	10,770,000	12,110,000
1978	2,801,208	83.2	8,965,000	10,085,000	9,960,000	11,205,000
1979	3,070,247	91.2	9,825,000	11,050,000	10,915,000	12,280,000
1980	3,442,784	102.2	11,000,000	12,400,000	12,240,000	13,770,000
1981	3,615,227	107.3	11,570,000	13,000,000	12,855,000	14,450,000
1982	3,378,953	100.3	10,800,000	12,165,000	12,010,000	13,515,000
1983	3,241,029	96.2	10,370,000	11,670,000	11,520,000	12,965,000
1984	3,826,300	113.6	12,244,000	13,775,000	13,600,000	15,305,000

* Queen Victoria Park

** Both figures have been taken from a study completed by Lanmer-Fenco in August 1984, where 3.2 represented a low-end estimate of party size, and 3.6 a count derived through a survey performed by that firm. (See The Tourism Industry in the City of Niagara Falls, Lanmer-Fenco, August 1981, p. 8.)

[1] Figures rounded

[2] Assumes that 10% of annual visitation occurs between November 1 and March 31. (See Tourism Industry in the City of Niagara Falls, Lanmer Fenco [August, 1981], p. 11.)

Source: Niagara Parks Commission Annual Reports (1969-1984)

Border crossing and hotel occupancy rate figures (See Tables 12, 13 and 14) reflect the highly seasonal nature of Niagara Falls' tourism industry. It is estimated that approximately 90% of all visits to the Falls occur between April 1 and October 31. Using this estimate, average annual visitation over the past five years would fall roughly between 12.5 and 15 million (See Table 11).

Accommodation and Food Service

While the Falls themselves and the Niagara Parks Commission's Falls-related amenities are without question the City's primary attractions,* a variety of other tourism services and attractions have arisen to take advantage of the enormous market potential facilitated by the Falls.

Within the City, there are an estimated 7,800 rooms of accommodation and 24,650 food and beverage chairs (excluding take-out operations) to serve tourists.

Accommodation facilities range from small, family-run operations to large chain hotels and are, in large part, concentrated in three parts of the City, i.e. Clifton Hill (north end), Murray Hill (central north) and Lundy's Lane (west). During the months of July and August average occupancies achieve levels in the mid to high 80%'s. However, as Table 14 indicates, occupancies decline to between 40% to 50% during the shoulder months and to between 20% and 40% during the low season (November through April).

These occupancy trends highlight the highly seasonal nature of Niagara Falls' tourism industry. A number of hotel and motel operators interviewed (See Section IV of this Report) stressed that their economic well-being is dependent upon business done over a 60 to 100 day period

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* Lanmer-Fenco and the Niagara Falls Visitor and Convention Bureau estimate that 95% of all visitors see the Falls.

TABLE 12

PEOPLE INTO CANADA VIA THE WHIRLPOOL BRIDGE, NIAGARA FALLS, ONTARIO

1979 - 1984

Month/Year	1979	1980	1981	1982	1983	1984
January	50,479	90,051	118,969	90,845	N/A	71,920
February	48,577	99,666	132,806	86,674	1,024	72,698
March	72,433	129,341	173,677	91,554	63,962	77,246
April	76,933	151,727	174,746	97,982	76,454	99,446
May	87,135	178,672	193,062	116,863	96,236	108,904
June	97,537	181,236	164,271	113,523	104,204	119,204
July	137,368	224,240	210,224	166,657	163,469	160,701
August	150,240	235,620	209,925	161,454	156,848	156,117
September	116,241	165,009	144,748	N/A	115,336	114,735
October	106,246	141,454	137,938	N/A	99,943	110,880
November	95,983	134,638	120,081	N/A	86,152	N/A
December	94,300	127,511	119,019	N/A	82,243	N/A
Annual Total	1,133,472	1,859,165	1,899,466	925,552	1,045,871	1,091,851

Source: The Rainbow Bridge Authority, 1985

TABLE 13

PEOPLE INTO CANADA VIA THE RAINBOW BRIDGE, NIAGARA FALLS, ONTARIO

1978 - 1982

Month/Year	1979	1980	1981	1982	1983	1984
January	97,490	143,400	160,146	121,518	210,780	168,852
February	106,032	159,134	190,570	136,683	225,865	177,546
March	172,137	219,740	241,471	178,233	232,994	192,597
April	216,556	283,083	294,320	228,830	293,460	304,755
May	277,849	370,112	385,911	330,883	350,792	369,243
June	364,549	439,740	420,836	369,427	403,764	429,320
July	576,788	671,693	684,680	645,851	694,814	672,960
August	614,354	732,344	704,930	663,963	671,815	694,514
September	358,987	365,797	364,187	421,728	415,890	397,316
October	265,468	311,904	298,571	369,333	319,626	335,040
November	181,667	216,455	194,853	254,809	210,815	N/A
December	157,518	169,674	158,791	259,512	211,387	N/A
Annual Total	3,389,395	4,083,076	4,099,266	3,980,770	4,242,002	3,742,143
Percentage Change	-6.0	+20.5	+0.4	-2.9	+6.6	N/A

Source: The Rainbow Bridge Authority, 1985

TABLE 14

OCCUPANCY RATES FOR SELECTED ONTARIO CITIES

(1981-1984)

Year	Region	January %	February %	March %	April %	May %	June %	July %	August %	September %	October %	November %	December %	Average Average %
1981	City of Niagara Falls						53.1	85.0	86.7	57.0	43.6	25.0	16.9	N/A
	Festival Country						61.0	81.7	84.2	68.7	59.3	47.2	37.0	N/A
	Metropolitan Toronto						83.6	80.5	89.4	84.0	77.0	69.6	44.2	N/A
	City of Ottawa						79.6	80.2	81.9	84.1	79.4	72.0	47.2	N/A
1982	City of Niagara Falls	20.0	21.0	24.5	29.0	40.4	52.7	87.0	84.7	55.6	47.2	28.4	20.8	43.9
	Festival Country	38.3	42.0	42.6	44.4	52.7	55.1	74.9	73.0	62.6	56.2	43.1	34.3	51.6
	Metropolitan Toronto	50.8	60.9	62.4	63.9	69.2	72.8	66.7	79.4	74.1	66.5	63.5	36.7	63.3
	City of Ottawa	50.8	65.0	64.6	65.0	82.6	78.9	76.7	78.0	79.1	71.0	61.0	41.2	67.5
1983	City of Niagara Falls	23.6	36.6	32.9	39.5	44.7	54.1	87.9	84.1	60.8	44.2	28.5	21.3	47.5
	Festival Country	34.7	43.5	43.1	47.3	52.5	59.9	76.7	74.6	66.4	57.8	47.4	37.1	52.9
	Metro Toronto	41.2	49.4	51.9	54.9	53.7	67.5	63.8	74.1	72.9	66.4	64.0	41.7	57.8
	City of Ottawa	46.2	58.1	60.6	56.9	78.7	75.3	67.4	71.8	80.6	75.6	60.2	41.5	63.7
1984	City of Niagara Falls	23.9	29.3	28.5	36.0	43.0	57.0	84.5	87.8	59.3	43.9	24.3	23.3	47.5
	Festival Country	39.4	45.0	46.9	50.6	56.6	61.3	75.7	83.9	68.4	60.7	53.6	42.7	57.0
	Metropolitan Toronto	47.9	64.5	63.3	63.4	74.0	80.9	75.1	87.5	80.4	76.3	76.8	49.3	68.6
	City of Ottawa	46.4	54.8	66.6	55.0	77.5	76.2	68.7	73.0	72.8	74.0	62.9	42.4	63.4

Source: Ontario Occupancy Monitor, 1981-1984

(May 24 to Labour Day). In addition, it was stressed that their future outlook will be largely dependent upon continued high visitation levels during the high season and upon the success of industry efforts such as the Festival of Lights* to generate increased shoulder and low season business.

Attractions

In addition to the Falls themselves, there are a variety of attractions from which the tourist can choose. These attractions can be divided into those managed by the Niagara Parks Commission which are for the most part directly related to the Falls, and those managed by the private sector.

Niagara Parks Commission Attractions

The Niagara Parks Commission's major attractions include the Maid of the Mist, Incline Railway, Niagara Spanish Aerocar, Scenic Tunnel, Viewmobiles, the Greenhouse/Conservatory, Dufferin Island's nature area, the Parks, the Great Gorge Trip and Daredevil Museum.

Over the past four years, combined attendance at these attractions has ranged between roughly 2.9 and 3.1 million (see Table 15).

Because a visit to the Falls is the top priority for most tourists to the City, these impressive attendance figures for Parks Commission attractions are not surprising.

Private Sector Attractions

A summary of the major private-sector attractions is provided below.

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* The Festival of Lights was initiated in the winter of 1983/84 as a five-year program to provide a stimulus for increased low-season tourism.

TABLE 15

ATTENDANCE AT THE NIAGARA PARKS COMMISSION ATTRACTIONS

1981-1984

	1981	1982	1983	1984
McFarland House	3,032	1,679	1,713	1,772
Whirlpool Golf Course	32,940	37,280	36,379	37,777
Niagara Spanish Aerocar	199,504	183,414	164,219	167,468
Maid of the Mist Incline Railway	645,903	603,502	717,125	786,272
Scenic Tunnel	731,952	679,907	619,561	680,595
Horsehoe Falls Incline Railway	837,377	785,287	754,666	827,649
Oak Hull Par 3 Golf Course	12,801	14,296	13,459	14,793
Viewmobiles	145,403	122,089	139,030	117,445
Miller's Creek Campsite	7,704	9,102	8,796	8,749
Old Fort Erie	54,937	50,078	47,544	45,970
Old Fort Erie Educational Tours	2,591	1,870	1,859	1,601
Charles Daley Park	31,865	26,473	26,251	24,882
Greenhouse-Queen Victoria Park	361,000	422,603	368,391	389,558
Stoney Creek Battlefield House	11,522	11,655	9,764	11,912
Oak Hull	6,226	-	-	-
TOTAL ATTENDANCE	3,084,757	2,949,235	2,908,757	3,116,443

Source: Niagara Parks Commission Annual Reports, 1982 and 1983; Preliminary figures for 1984 provided by the Niagara Parks Commission

Marineland and Game Farm

Over the years, Marineland and Game Farm has grown to become a world-class theme park with a tourist drawing power independent of the Falls.

Offering water-based animal performances, game farm displays, the world's largest roller coaster and a number of food and beverage outlets, it may be enlarged as the result of an ambitious $80 million expansion program which would feature the addition of a monorail, a steam locomotive and waterways to transport visitors around the park, as well as an entertainment centre and stadium suitable for year round usage. Construction of new rides and a castle are also part of the expansion plans.

Marineland's pricing structure is such that an entry admission entitles the visitor to unlimited use of all Marineland facilities, making it a highly competitive product capable of offering a full day's worth of entertainment.

Maple Leaf Village

Maple Leaf Village is a themed shopping centre/accommodation/amusement complex attached to the Brock and Foxhead Sheraton Hotels.

Wax Museums

According to the Convention and Visitors Bureau, wax museums draw an estimated 6.5% of visitors attending attractions besides the Falls. Little additional information is available regarding visitation. However, they would appear to continue to attract a fairly stable percentage of visitors interested in this specialized type of facility.

Tourist Characteristics

The data presented regarding tourist characteristics are based upon interviews with private sector operators, the Niagara Parks Commission, upon studies completed by the firm of Lanmer-Fenco in 1981 and upon a series of four tourism-related reports released by the Planning and Development Department of the Regional Municipality of Niagara.

Visitor Origin

An estimated 53% of all visitors to Niagara Region are American, 60% to 80% of whom are believed to come from the Great Lake States. Ontario residents account for 38% of visitation to the area, with the remaining 8% originating in Quebec (4%), other provinces (3%) and other countries (1%).*

Length of Stay

Parking surveys cited in the Lanmer-Fenco August 1981 report suggest that the average length of stay for day trip visitors to the City is two hours and for overnight visitors, 1.3 to 1.5 days. In light of the growing popularity of Marineland which is characterized by considerably longer stays, these estimates may be low. Nevertheless, one of the major concerns held by tourism operators is that the characteristically short stays of tourists have led to unusually low per capita expenditures. Indeed, in response to this perceived problem, the City and tourism operators have been investigating the viability of a Light Rapid Transit People Mover which would be routed to facilitate tourist visits not only to the Falls, but to attractions and retail centres outside of Queen Victoria Park. In the recently released report, it is expected that the People Mover will be in place by 1990, provided sufficient financing can

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* The figures for American visitation contained within Report No. 1 of Tourism in the Niagara Region (Planning and Development Department, Regional Municipality of Niagara) do not vary greatly from the Niagara Parks Commission License Plate Survey which reported 56% of all cars (1981 to 1983) to be from the U.S. The figures provided in Report No. 1 do not add to 100%, presumably due to rounding.

TABLE 16

EXPENDITURES PER PERSON-TRIP

(1981 Dollars)

	Ontario		Niagara Falls	St. Catharines		Niagara on-the-Lake	
Accommodation	$ 9.22	14%		$ 5.61	23%	$ 8.17	21%
Food and Beverage	18.38	27		6.75	28	22.17	57
Amusement and Recreation	5.82	9	n/a	2.30	10	5.45	14
Retail Sales and Miscellaneous	11.77	18		9.48	39	n/a	n/a
Public Transportation	10.47	15		n/a		n/a	n/a
Service Station	11.47	17		n/a		3.18	8
	$67.08	100%	$16.42	$24.14	100%	$39.54	100%

Source: Tourism, The Niagara Region, Report No. 1, Planning and Development Department, Regional Municipality of Niagara (October 1983) p. 5.

TABLE 17

PER CAPITA VISITOR EXPENDITURES IN THE NIAGARA REGION

(1979 Dollars)

		Daily Per Capita Expenditure
Accommodation	14.4%	$ 1.91
Food and Beverage	29.2	3.88
Amusement and Recreation	14.2	1.89
Retail Sales	17.7	2.35
Transportation Services	12.6	1.67
Service Stations	11.9	1.58
	100.0%	$13.28

Source: Tourist Area Traffic and Parking Study, Lanmer-Fenco (August 1981) p. 15

be garnered from the private sector. The Planning Department has projected that annual visitation with the People Mover in place will reach 22 million by 1995 (3.25% annual growth). Without the People Mover it is projected that visitation will increase 2% annually.

The long-range goal of the City's Visitors and Convention Bureau to change the image of Niagara Falls as a "pass-through" attraction to a tourism destination, is again reflective of the recognized need to promote longer stays and higher per capita expenditures.

Per Capita Expenditures

As Tables 16 and 17 illustrate, two sources place per capita expenditures for Niagara Region and Niagara Falls at levels considerably lower than for major centres within the Region and for Ontario as a whole.

Per person expenditures were estimated for Niagara Falls in 1981 to total $16.42, less than one-quarter of the Ontario average and less than half that of Niagara-on-the-Lake. While percentage allocations to expenditure categories do not vary greatly between Niagara Falls and the province, the dramatically lower dollar expenditures underscore the problem of short lengths of stay in Niagara Falls.

Household Structure, Party Size, and Income

Because up-to-date information on tourists visiting Niagara Falls is not available, the following general profile should be treated as a rough description only:

- Between 45% and 50% of all parties visiting the Falls are families, the remainder being comprised of couples and groups.

- As would be expected, a higher proportion of parties visiting Niagara Falls during the summer months are families, with singles and couples representing a larger percentage of visitors during other months of the year.

- The average party size is between 3.2 and 3.8 people.

- Income levels of American visitors travelling in Ontario appear to be higher than those of Ontario residents travelling within their own Province, i.e. while 73% of U.S. visitors had incomes of $19,000 or more, 59% of Ontario resident travellers had real incomes of $18,400 or more (1981). These patterns are believed to be applicable to Niagara Falls visitors.

Economic Impact of Niagara Falls' Tourism Industry

The tourism industry contributes to Niagara Falls and Niagara Region in a number of ways:

- It is a source of employment, both seasonal and year-round;

- A portion of the revenues generated by the initial round of tourist expenditures circulates through the economy resulting in direct, indirect and induced impacts upon the revenues and employment of other industrial sectors;

- The tax base of the City benefits from assessment revenues generated by tourism establishments.

- Construction of new tourism establishments and the expansion of existing operations generates direct, indirect and induced impacts within the local economy.

In addition, the tourism industry of Niagara Falls benefits the Region of Niagara and the Province as a whole, by attracting visitors and tourism expenditures to Ontario from other parts of Canada and from the U.S. Each of these impacts is assessed below.

Income Generated by Tourist Expenditures

As noted in the discussion of per capita expenditures, each visitor to Niagara Falls in 1981 was estimated to have spent $16.42 on tourism-related services and attractions (See Table 16). Assuming national rates of inflation for 1983 and 1984, per capita expenditures in 1984 would approximate $20.00. Based upon our estimates of total annual visitation for 1984 (See Table 11), direct tourism expenditures by visitors to Niagara Falls totalled between $272 and $306 million (see Table 18, below). This compares with the $350 million estimate provided by the Niagara Falls Visitors and Convention Bureau.

TABLE 18
ESTIMATED TOURISM EXPENDITURES WITHIN NIAGARA FALLS
(1981 TO 1984)

$ millions

	Annual Visitation*			Total Tourism Expenditures	
Year	Scenario 1**	Scenario 2***	Per Capita Expenditures	Scenario 1**	Scenario 2***
1981	12,855,000	14,450,000	16.42	$211.0	$237.3
1982	12,010,000	13,515,000	18.19	$218.5	$245.8
1983	11,520,000	12,965,000	19.25	$221.7	$249.6
1984	13,600,000	15,305,000	$20.00	$272.0	$306.1

* See Table 11
** Assumes 3.2 people per car
*** Assumes 3.6 people per car

Source: See Tables 11 and 16

To assess the overall impact of these tourism expenditures, one needs to look at indirect and induced effects.

A Ministry of Tourism and Recreation report entitled The Economic Impact of Tourism in Ontario and Regions (June 1984) provides data showing the overall (direct, indirect and induced) impact of tourism expenditures for each Region of the Province. For Festival Country, the Region of which Niagara Falls is a part, it was determined that for every dollar of tourism expenditure an additional $0.31 of income was generated in the Region in 1982. Assuming this "income multiplier" has not changed, the injection of $272 to $306 million of tourism expenditures in 1984 generated between $356 to $400 million in income.

TABLE 19
INCOME GENERATED BY TOURISM EXPENDITURES IN NIAGARA FALLS
(1981 TO 1984)

Year	Estimated Tourism Expenditures* Scenario 1 ($ millions)	Estimated Tourism Expenditures* Scenario 2 ($ millions)	Income Multiplier ($)	Estimated Income Generated Scenario 1 ($ millions)	Estimated Income Generated Scenario 2 ($ millions)
1982	218.5	245.8	1.31	286.2	322.0
1983	221.7	249.6	1.31	290.4	327.0
1984	272.0	306.1	1.31	356.3	400.1

* See Table 18

Impact of Tourism on Employment

Direct Employment

While the precise number of direct jobs associated with the tourism sector in Niagara Falls is difficult to determine, there are a number of studies and surveys which provide some indication of the industry's impact on employment.

In the Lanmer-Fenco August 1981 Report, direct tourism employment was estimated to total 4,700 man-years for the 1979/80 period.

In 1981, the Niagara Falls Visitors and Convention Bureau estimated that direct tourism employment in Niagara Falls totalled 6,315 full time

TABLE 20

EMPLOYMENT GENERATED BY TOURISM EXPENDITURES IN NIAGARA FALLS

(1982 TO 1984)

	Estimated Tourism Expenditures		Direct Employment	Direct Tourism Employment		Direct and Secondary	Total Tourism-Related Employment	
Year	Scenario 1	Scenario 2	Multiplier*	Scenario 1	Scenario 2	Multiplier*	Scenario 1	Scenario 2
	($ millions)			(Person Years)				
1982	218.3	245.8	3.21	7,005	7,890	6.01	13,120	14,770
1983	221.7	249.6	3.21	6,725	7,570	6.01	12,590	14,180
1984	272.0	306.1	3.21	7,935	8,930	6.01	14,855	16,720

* Per $100,000 of tourism expenditures (1982) inflated to $105,800 in 1983 and $110,032 in 1984 based on inflation factors of 5.8% and 4.0%, respectively.

positions (based on a 40-hour week) and 6,468 part-time positions (based on a 20-hour week). These figures were updated in 1984 by the Bureau to 6,500 full-time and 6,500 seasonal jobs.

According to the Bureau, the 6,500 seasonal jobs would be equivalent to 3,250 year-round jobs (i.e. half of 6,500), giving an annual total of 9,750 direct year-round jobs related to tourism.

There is another means of calculating direct employment attributable to tourism. According to findings contained in The Economic Impact of Tourism in Ontario and Regions (Ontario Ministry of Tourism and Recreation, June 1984) for every $100,000 of tourism expenditures spent in 1982 within Festival County (of which Niagara Falls is a part), 3.21 direct tourism jobs were created. By inflating and applying this factor or "multiplier" to our estimate of tourism expenditures (See Table 18) in Niagara Falls, direct tourism-related employment would fall between 7,935 and 8,930 person years (See Table 20).

Indirect and Induced Employment

Indirect and induced employment generated by tourism expenditures can also be estimated for Niagara Falls, using as a basis multipliers derived in the above-cited report for Festival Country. In this Report the overall employment multiplier per $100,000 of tourism expenditures is estimated at 6.01.

Using this multiplier as a basis, the total employment impact attributable to tourism would be between 14,555 and 16,720 person years in 1984.

The importance of tourism employment to the local economy becomes more evident through the following analysis:*

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* The base year of 1981 is used here as the multiplier was derived using 1981 data and can be utilized in conjunction with reliable 1981 Census data.

- As shown on Table 18, total tourism expenditures in 1981 were between $211.0 and $237.3 million.

- Utilizing the 6.01 overall employment multiplier, total employment supported by tourism expenditures for 1981 would be 12,680 to 14,255, of which 6,775 to 7,615 were direct,* and 5,905 to 6,640 indirect and induced.

- In 1981, total employment in Niagara Falls totalled approximately 29,400.**

- Thus, direct tourism jobs are estimated to have accounted for between 23% and 26% of total employment in Niagara Falls in 1981, and on an overall basis (i.e. direct, indirect and induced), between 43% and 48.5%.

Based on tourism expenditures estimated **for 1984** (see Tables 18 and 20), overall employment attributable to tourism was 14,855 to 16,720 person years.

Summary of the Employment-Related Impact

It is estimated that tourism expenditures in Niagara Falls in 1984 generated the following number of jobs.

	Person Years		
	Scenario 1	Scenario 2	Multiplier
Direct Jobs	7,935	8,930	3.21
Indirect and Induced Jobs	6,920	7,790	2.80
TOTAL	14,855	16,720	6.01

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* $\frac{\text{Tourism Revenues}}{\$100,000}$ x 6.01 for total; $\frac{\text{Tourism Revenues}}{\$100,000}$ x 3.21 for direct

** According to Clayton Research Associates Limited, 24.5% or 7,200 people were employed by the manufacturing centre. From these figures, total employment can be calculated, i.e. 7,200/0.245 or 29,387. (See Clayton Research Associates Limited, Site Selection Process, Phase 4A: Selection of (a) Preferred Site(s) - Economic Base, 1985.

Impact of Tourism upon the Tax Base

The accurate calculation of taxes generated as a result of tourism expenditures is a complex undertaking beyond the scope of this study. Such a calculation would involve consideration of property and business, retail sales, tobacco, liquor, fuel and personal income taxes and consideration of three levels of government.

However, an effort has been made to estimate the contribution of Niagara Falls' tourism industry to the provincial and municipal tax bases, using models provided by the Ministry of Tourism and Recreation Report (June 1984), and assessment figures provided by the City of Niagara Falls.

Personal Income Taxes (Provincial)

Personal income taxes associated with tourism for the Regions of Ontario were calculated using the following formula:*

$$\text{Tax} = \frac{\text{Personal Income in Ontario}^{1}}{\text{GPP}} \times \frac{\text{Personal Income Taxes in Ontario}^{2}}{\text{Personal Income}} \times \begin{array}{c}\text{Total Income Generated}\\ \text{by Tourism Expenditures}\\ \text{in the Region}\end{array}$$

Applying the factors derived for Ontario for 1982 to 1984, total personal income taxes attributable to tourism expenditures in Niagara Falls in 1984 would be $14.5 to $16.3 million.

Retail Tax

A formula was developed in the Ministry of Tourism and Recreation publication expressing tourism's expenditure-related retail tax contribution** by Region. Applying our estimated range of tourism-related expenditures in Niagara Falls for 1984, total retail sales taxes would be between $8.4 and $9.5 million.

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* The Economic Impact of Tourism in Ontario and Regions, Ministry of Tourism and Recreation (June 1984), pp. 99-100.

** Ibid., p. 100

Corporate Profit Tax

The model derived for calculation of corporate profit tax attributable to tourism expenditures in Regions of the Province would yield, for Niagara Falls, a total of between $4.3 and $4.9 million in 1984.

Municipal Assessment

Of total taxes billed by the City of Niagara Falls in 1984, an estimated $23.5 million or 47% was attributable to business and commercial enterprises. Of this latter total, roughly $10 million was related to tourism operations, constituting approximately 43% of all business/commercial taxes and 20% of the City's tax base.*

Summary of Tax Related Impacts

While Federal taxes and those attributable to liquor, tobacco and fuel could not be estimated, an attempt has been made to determine provincial personal income, retail and corporate profit taxes as well as municipal assessments for 1984 resulting from income generated by tourism expenditures of between $272 and $306 million. These estimates are summarized below:

	Tourism Expenditures	
Type of Tax	Scenario 1 ($ million)	Scenario 2 ($ million)
Personal Income	$ 14.5	$ 16.3
Retail	8.4	9.5
Corporate Profit	4.3	4.9
Provincial Total	$ 27.2	$ 30.7
Municipal Assessment	$ 10.0	$ 10.0
TOTAL	$ 37.2	$ 40.7

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* City of Niagara Falls Estimate

Tourism-Related Investment

Based upon figures provided to us by the Ministry of Tourism and Recreation, a total of $19.8 million has been invested in the expansion and/or upgrading of Niagara Falls' accommodation facilities since the fall of 1982. Injection into the economy of construction-related monies also carries with it, direct, indirect and induced employment and revenues impacts.

Employment Generated by Construction

To calculate employment derived from construction, a construction industry "rule of thumb" has been utilized, i.e. that for every $1 million of construction investment, thirty direct construction jobs are generated. It has also been assumed that one-third of construction investment is lost to or "leaked from" the local economy in labour and construction supplies.

On this basis, construction-related employment in Niagara Falls between the fall of 1982 and 1984 resulting from the investment of $19.8 million, would be ($19.8 x 30 x .66) = 392 direct construction jobs.

While there are indirect and induced employment impacts associated with the injection of construction revenues into the local economy, to our knowledge appropriate construction-specific multipliers have not been derived for Niagara Falls. Thus, the total of 392 construction jobs understates the actual impact upon employment in the local community.

Income Generated by Tourism Investment

The total impact on income of a $19.8 million investment in construction will be the sum of the direct wages paid to local construction related workers, the indirect income accruing to local suppliers of construction-related goods and services, and the induced income generated by construction worker expenditures on goods and services within the local economy. In addition, there are corporate and personal income tax benefits resulting from such an investment. Calculation of the magnitude of income-related impacts would require acquisition of detailed data relating to Niagara Falls' construction-related wage rates as well as an input-output analysis to determine appropriate indirect and induced multipliers. Such tasks are beyond the scope of this study.

Summary: Tourism Industry Impact

It is estimated that between $272 and $306 million in tourism expenditures was generated in Niagara Falls in 1984. The total (direct, indirect and induced) impact upon income in 1984 is estimated to be between $356 and $400 million.

In 1984, the Niagara Falls tourism industry produced between 7,935 and 8,930 person years of work directly related to tourism. The total (direct, indirect and induced) employment impact of the tourism industry amounted to between 14,855 to 16,720 jobs.

Tax revenues generated by tourism expenditures in Niagara Falls amounted to between $38 and $42 million, excluding liquor, fuel and tobacco taxes. Included in tax revenues is municipal assessment directly related to tourism, totalling $10 million or 20% of all municipal taxation for 1984. An estimated 392 local construction-related person years of employment were created over a two-year period (fall 1982 to fall of 1984) as a result of investment in tourism in Niagara Falls.

TOWNSHIP OF WEST LINCOLN

Introduction

The Township of West Lincoln with a population of approximately 9,850 (1981) is located south of Grimsby in the Regional Municipality of

Niagara. Its population is distributed among small hamlets, the Town of Smithville and rural farm and non-farm homes. A brief socio-economic profile follows.

Socio-Economic Profile

As Table 21 indicates, West Lincoln has a considerably younger population than that, for example, of Niagara Falls, with 76% of its residents under 45 years of age in 1981, as compared with 66% for Niagara Falls. Over 40% of its population is under 20 years of age.

TABLE 21

POPULATION BY AGE COHORT: WEST LINCOLN AND NIAGARA FALLS

Age	West Lincoln (%)	Niagara Falls (%)
0 to 19	40	31
20 to 34	23	24
35 to 44	13	11
45 to 54	9	12
55+	15	22
	100	100

Source: Financial Post Survey of Markets, 1984, Statistics Canada by Census Tract

As noted above, the Township's economy is based largely upon agriculture. Employment statistics point to the importance of this industry:

TABLE 22
WEST LINCOLN LABOUR FORCE BY MAJOR OCCUPATION GROUP
1981

Occupation	Number	%
Managerial, administrative and related	170	4.0
Teaching and related	135	3.2
Medicine and health	175	4.1
Technological, social, religious, artistic and related	165	3.9
Clerical and related	535	12.5
Sales	270	6.3
Service	290	6.7
Primary*	830	19.4
Processing	250	5.8
Machine product fabricating, assembling and repairing	550	12.9
Construction and trades	370	8.6
Transport equipment	275	6.4
Other	265	6.2
TOTAL	4,280	100.0

* Includes agriculture

Source: Statistics Canada 1981 Census, Catalogue #93-966

While almost 20% of the labour force works in primary resource occupations, clerical and machine product-related occupations together account for approximately 25% of the labour force.

By virtue of West Lincoln's proximity to the Queen Elizabeth Way, Highway 20 and the rail line linking Toronto to Buffalo, the area has the potential to draw small industry to such locations as the industrial park in Smithville. For the most part, West Lincoln's commercial operations serve local residents' needs.

Tourism Profile

West Lincoln is located within the Festival Country Travel Association Area, which includes among others, Halton, Niagara, and Hamilton-Wentworth Regions.

While the Township is not generally associated with tourism, it is bisected by Highway 20 which offers an alternative route for tourists travelling between Niagara Falls and Hamilton.

There is only a limited number of facilities which may have tourism appeal. The Silverdale Sports Centre hosts the provincial metallic pistol and rifle championships and other tournaments. The Balls Falls Conservation Area, a day-use facility which is in the process of developing a Pioneer Village, is reported to have an annual attendance of 40,000 to 45,000 people.

Under the jurisdiction of the Niagara Escarpment Commission, the Conservation Area contains plant and animal habitats, geological features and scenic attributes of environmental significance. A survey of Balls Falls Conservation Area visitors (1977) indicated the following user characteristics:

- 61% are group day users;
- 19.9% are day users for educational purposes of which 4% reside outside the Niagara Region;
- 7.3% are group campers;
- 6.3% are family campers;
- 5.3% are walk-ins;
- 0.1% are annual permit holders.

Use of Balls Falls for tourism purposes on day-use and group camping bases is not significant. However, its family camping facilities were used for tourism purposes in 1977 by an estimated 1,970 people. Of all campers, however, two-thirds were reported to stay for only one night, suggesting that the area serves primarily as a stopover point for tourists en route to other destinations.

Summary

The Township of West Lincoln is primarily a rural and agricultural community. To a limited extent, however, tourists passing through the area en route to destinations such as Toronto and Niagara Falls patronize camping, retail (gasoline and food) and Conservation Area amenities. There is little information at this time to suggest that West Lincoln's tourism industry will grow to become an important component of the Township's economic base.

TOWN OF MILTON

Introduction

The Town of Milton, with a population of just over 31,000 people, lies within the Regional Municipality of Halton, which itself is located on the northwest shoreline of Lake Ontario between Toronto and Hamilton. Up to the early 1960's, Milton was primarily a rural community, known for its rustic century homes and farms, as well as such recreational amenities as the Niagara Escarpment, and the Kelso/Rattlesnake Conservation Areas.

Over the past twenty years, Milton has experienced considerable residential and industrial growth by virtue of its proximity and accessibility to Southern Ontario's major population and commercial centres.

A brief description of its socio-economic profile follows.

TABLE 23

POPULATION PROJECTIONS: MILTON

1978	22,706
1979	24,163
1980	26,589
1981	28,502
1982	30,276
1983	31,745
1984	32,483
1985	32,752
1986	33,020
1987	33,252
1988	33,573

Source: Population and Development Forecast, Town of Milton Planning Department, (1981), Table 4.

TABLE 24

HALTON REGION POPULATION PROJECTIONS

	Burlington	Halton Hills	Milton	Oakville	Region
1951	18,913	10,344	4,421	15,028	48,706
1961	47,008	20,509	7,997	42,109	117,623
1971	86,745	29,676	14,838	58,971	190,230
1976	103,728	33,792	20,509	68,116	226,245
1979	111,200	34,030	24,170	70,850	240,250
1980	112,700	34,397	26,589	73,603	247,311
1986[1]	132,970	38,470	32,780	82,330[3]	286,550
2001[2]	170,000	50,000	37,000	130,000	387,000

1979-1986 - 2.8% Annual Growth Rate or 6,600 people/year.

1986-2001 - 2.3% Annual Growth Rate or 6,700 people/year.

[1] Population forecasts based on mathematical projections.

[2] Population targets which represent an estimate rather than a commitment.

[3] If the housing market conditions are favourable, it is possible that up to 14,000 additional persons would be added to Oakville population figure for a total of 96,000 by 1986.

Socio-Economic Profile

Tables 23 and 24 prepared by the Town of Milton Planning Department and the Halton Department of Business Development, respectively, present two only slightly differing projections of population growth for Milton.

By 1986, it is expected that some 32,750 to 32,780 people will reside in the Town. It should be noted that actual preliminary estimates of the Town's population in 1983 prepared by the Financial Post are some 500 people less than that indicated on Table 23, suggesting perhaps that projections for 1986 and beyond may be somewhat overstated.

Nevertheless, as Table 25 illustrates, Milton has experienced rapid growth relative to Ontario and Canadian averages. Its population growth rate per decade is considerably higher than any other Ontario Census Agglomeration profiled by the Financial Post:

TABLE 25

TOWN OF MILTON POPULATION GROWTH

	1979	1980	1981	1982	1983
Milton					
Growth Rate per Decade	70%	68%	65%	80%	78%
% Canadian Total	0.10%	0.11%	0.11%	0.12%	0.13%
% Change	+17.53%	+23.31%	+28.61%	+42.58%	+11.00%
	1979/76	1980/76	1981/76	1982/76	1983/81
Ontario					
Growth Rate per Decade	10%	9%	9%	9%	10%
% Canadian Total	35.92%	35.86%	35.66%	35.31%	35.42%
% Change	+2.92%	+3.66%	+4.40%	+5.11%	+2.20%
	1979/76	1980/76	1981/76	1982/76	1983/81
Canada					
Growth Rate per Decade	10%	10%	11%	12%	12%
% Canadian Total	100.0%	100.0%	100.0%	100.0%	100.0%
% Total	+2.99%	+3.91%	+5.23%	+7.01%	+2.2%
	1979/76	1980/76	1981/76	1982/76	1983/81

Source: Financial Post Survey of Markets (1979 to 1984).

TABLE 26
MILTON LABOUR FORCE
BY MAJOR OCCUPATION GROUP
1981

Occupation	Number	%
Managerial, administrative and related	1,915	14.1
Teaching and related	675	4.9
Medicine and health	520	3.8
Technological, social, religious, artistic and related	990	7.3
Clerical and related	2,690	19.8
Sales	1,570	11.6
Service	1,595	11.8
Primary*	765	5.6
Processing	400	2.9
Machine product fabricating, assembling and repairing	500	3.7
Construction and trades	635	4.7
Transport equipment	620	4.6
Other	700	5.2
TOTAL	13,575	100.0

* Includes agriculture

Source: Statistics Canada 1981 Census, Catalogue #93-966

A breakdown of Milton's labour force in 1981 indicates that the clerical and related, service and sales sectors account for 43% of Milton's labour force. (See Table 26)

Traditionally, many Milton residents have commuted to non-region workplaces. As Table 27 suggests, employment within Milton is expected to provide a fairly consistent 10% of the Region's employment over the 25-year period of 1976 to 2001.

TABLE 27

PHASED DISTRIBUTION OF EMPLOYMENT BY MUNICIPALITY FOR 1976, 1986 AND 2001

Municipality	1976	1986	2001
Burlington	27,300	50,200	67,300
Halton Hills	9,200	13,700	17,000
Milton	7,100	11,300	15,700
Oakville	28,700	40,400	61,300
Region of Halton	72,300	115,600	161,300

Source: Official Plan for the Halton Planning Area, Regional Municipality of Halton (December 1982), Table 3, p.53.

Tourism Profile

Amenities Offered

Milton offers a variety of amenities having potential tourism appeal, the general scope of which is noted below:

TABLE 28

SUMMARY OF MILTON'S TOURISM-RELATED AMENITIES

	Number		Number
Hotels Motels	6	Number of Rooms	170
Campgrounds/Trailer Parks	3	Number of Campsites	635
Museums	3	Total Annual Attendance	51,505
Galleries	7		
Conservation Areas	8	Total Annual Attendance	407,000
Golf Courses	3		

Source: Peter Barnard Associates, Tourism Master Plan, Halton Region and Phase I: Appendix "A", 1984, pp. 3.4, 3.7 and 3.11.

Tourist Visitation

Because there has been no systematic record kept of visitation to Milton or to Halton Region as a whole, there is presently no reliable estimate of the number of tourists coming to the area.

While there are attendance figures for a number of Milton's attractions, no breakdown of their tourist/non-tourist components is available.

The Rattlesnake Point Conservation Area, comprising 230 hectares, draws an estimated 30,000 visitors to its biking and cross-country ski-trails, campsites and picnic facilities. Of its 30,000 visitors, approximately 40% or 12,000 people come from outside of the Region of Halton. In 1983, a total of $23,000 in revenues was generated from entrance and camping fees.

The Sixteen Valley Conservation Area attracts 1,000 people per year and offers limited hiking, picnicking and fishing.

Of major regional significance is the Kelso Conservation Area which draws 300,000 visitors annually to its swimming, boating, fishing, biking, cross-country and alpine skiing amenities. The KCA also houses the Halton Region Museum which was visited by 5,661 people in 1983.

TABLE 29

TOWN OF MILTON

SELECTED ATTRACTIONS: VISITATION-SUMMARY

Facility	Attendance
Conservation Areas(8)	
Kelso	300,000
Halton Hills	19,000
Rattlesnake Point	32,000
Crawford Lake	6,000
Mountsberg	50,000
Total Attendance	407,000
Museums	
Halton Radial Museum	7,305
Halton Regional Museum	5,661
Ontario Agricultural Museum	38,539
Total Attendance	51,505
Mohawk Raceway Total Attendance	501,000

Source: Peter Barnard Associates. Tourism Master Plan, Halton Region. Phase 1: Appendix A, Tourism Inventory Details, July 1984 (Revised, September 1984) pp. 3.12, 3.8

In total, the eight* conservation areas within Milton were utilized by over 400,000 people in 1983. Other potential tourism-related services and attractions within Milton include the Halton Radial Museum (attendance 7,305 in 1982), the Ontario Agricultural Museum (attendance 38,539 in 1983), seven art galleries, driving and walking tours offered by Milton's Historical Society and the North Halton Tourism Association, numerous antique, crafts and specialty stores, several "pick your own" farms and over 100 historical sites and buildings.

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* Kelso, Halton Hills, Burns, Campbellville Pond, Rattlesnake Point, Crawford Lake, Mountsberg and Sixteen Valley.

Unfortunately, hotel/motel, campsite occupancy figures, visitation to historical sites/buildings and shops/boutiques and accurate counts of the non-Halton (tourist) component of all visitation are not readily available. Employment and revenues attributable to tourism cannot be derived from the existing, published data base.

Tourist Profile

The findings of the Phase 2 Report prepared by Peter Barnard Associates as part of the Halton Region Tourism Master Plan and the final tourism strategy Report* provide interesting and useful insights into Milton's tourism industry relative to Halton's southern municipalities of Burlington and Oakville.

The following major points emerge from the Phase 2 Report:

- Some 49% of all visitors to Milton travel in parties of four or more people (a considerably larger party size than for other Halton municipalities or for visitors to Metro Toronto).
- The average per capita tourist expenditure per visit without accommodation is $28, which is considerably lower than that of the South Halton municipalities of Burlington ($56) and Oakville ($67).
- Almost half of Milton's visitors fall within the 26 to 50 years of age range.
- An estimated 45% of visitors to Milton have household incomes of $41,000+, much higher than the corresponding 18% figure for Metro Toronto visitors. In fact, Halton as a whole has a significantly larger share of visits by tourists having above average incomes.

* See Phase 2, Targetting the Tourist (September, 1984) and A Tourism Strategy for Halton (April, 1985), Peter Barnard Associates prepared on behalf of the Regional Municipality of Halton.

- Milton and Halton Hills which comprise North Halton do not have as high a proportion of first-time visitors as does the southern municipality.

- Milton is highly dependent upon neighbouring areas of Peel, Hamilton-Wentworth and Metropolitan Toronto for its tourist market, with 57% of its visitors originating from these areas; only 21% of its visitors come from beyond these areas (the remaining 22% come from other parts of Halton itself). Such a high dependency is quite distinct from South Halton's municipalities, where over 57% of visitors originate beyond neighbouring areas.

- Milton's primary market is oriented to visiting Milton on a day-trip basis. In fact, 51% of its visitors cited their purpose of visit as being a day-trip excursion according to Peter Barnard Associates' findings. Sports and recreation (17%) was the second most popular purpose of visit, visiting attractions being the third (15%). An estimated 10% of Milton's tourists remain overnight or longer.

- As compared to South Halton's municipalities, responses for Milton regarding purpose of trip were very polarized, possibly reflecting a lower awareness of amenities available in Milton and/or a less developed tourism base.

- Only 35% of trips to Milton are part of a larger trip, i.e. a high proportion of visitors come to Milton and return home.

- Average tourist expenditures in Milton and Halton Hills are much lower than for South Halton:

	Milton	Burlington	Halton Hills	Oakville
Without Accommodation	$28	$56	$20	$67

- Only 10% of Milton's visitors stay overnight or longer - the lowest percentage of the four Halton municipalities.

- Groceries, recreation and transport/gas are the three most frequent expenditures made by tourists in Milton. This contrasts with South Halton where restaurants, accommodation and transport/gas are the major expenditure categories.

- There is a "serious lack of awareness among tourists of attractions in Milton and Halton Hills".*

- Over half of people visiting Milton indicated that their information regarding the destination came through word-of-mouth referral. Only 6% cited advertising and promotional materials/ media as being their source.

- Some 77% of people visiting Milton and 80% of people coming to Halton Region as a whole regard their visits as above average. However, the majority of tourists do not regard Halton as being better than four other competitive areas (Metropolitan Toronto, Collingwood, Niagara Falls, Kitchener). Only Hamilton is considered as being inferior to Halton.

Thus, tourism in Milton and North Halton in general, is distinctly different than in South Halton in a number of ways:

- It is heavily dependent on day-trip excursions from nearby areas.

- It experiences considerably lower tourism expenditures.

- Awareness of the area as a tourism location is very low.

- It receives relatively low first-time visitors.

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* Peter Barnard Associates, Phase 2, Targetting the Tourist, p. 13.

- Word-of-mouth as opposed to marketing efforts, is the prime source of information for tourists.

- A very low proportion of visitors stay overnight or longer.

Tourism's Economic Impact

According to Peter Barnard Associates*, the economic impact of tourism upon Milton is as follows:

- In 1984, Milton generated between $4.4 and $5.5 million from direct tourist expenditures or approximately 13.5% of total direct tourism expenditures for the Region.

- Tourism opportunities have led to the stimulation of local entrepreneurship as well as the attraction of non-resident investors to Milton and the Region as a whole.

- Businesses in Halton perceive tourists as comprising between 15% and 20% of their business, and as being low spenders and seasonal in nature.

- Most business in North Halton view tourists as spending less than non-tourists.

- While 94% of Milton businesses advertise and promote, only 33% do so outside Halton Region. Advertising budgets tend to be low.

Tourism Outlook

From the Peter Barnard Associates findings the following general comments upon Milton and Halton Region's tourism outlook can be made:

- The commissioning of a tourism development study reflects Halton's interest in capitalizing on its tourism potential.

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* See Peter Barnard Associates A Tourism Strategy for Halton, (April, 1985) pp. 1.3, 1.4, 1.14.

- Halton generally and Milton specifically offer prestigious and popular tourist attractions such as The Ontario Agricultural Museum, The Mohawk Raceway, antique and craft shops, nature trails, museums and annual festivals.

- According to Peter Barnard, the implementation of a sound tourism strategy could reasonably generate a 10% increase in tourist visits and tourist expenditures and an additional $1.9 million in tourism expenditures, annually.*

- Within the foreseeable future, Milton's tourism industry will in all likelihood, continue to be characterized by day-trip as opposed to overnight visits. Until the accommodation, attractions and food and beverage components of its tourism base are developed, tourist expenditures will continue to be lower than for the Region as a whole.

- Milton will have to raise the level of awareness of its primary market in order to generate higher visitation. It will also be vying for the tourism market in a highly competitive setting. (While the study indicates that tourists experience above average satisfaction with the tourism product, other day-trip destinations were perceived as being equally as attractive as Halton.)

- Based upon comments of businesses in the area, it would appear that there has not been an emphasis placed on developing tourism. Milton and Halton Region as a whole appear to be in the formative stages of their tourism development. Growth will in large part be dependent upon:

    - Efforts to increase and improve the area's image as a tourist destination in a way which distinguishes its product from other competing areas;

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* See Peter Barnard Associates A Tourism Strategy for Halton, (April, 1985), pp. 2.7, 2.8.

- The commitment of the Region's operators, investment community and government officials to develop and market its tourist attractions;

- Expansion of the number and variety of tourism-related amenities offered.

In the long term the area may be able to increase its length of stay and tourist expenditures if it develops the mix of accommodation, attractions, events, amenities and marketing programs required to support more extended visits. Its recreational amenities combined with its proximity to the large Metropolitan Toronto population and tourist markets and its location midway between Toronto and Niagara Falls provide solid bases for tourism growth.

SECTION IV
INTERVIEWS

INTRODUCTION

To base our assessment and rating of the seven candidate sites on as complete an information base as possible, personal interviews with approximately 50 public and private sector representatives of the tourism industry were undertaken. The primary purpose of these interviews was to identify the potential type, magnitude and duration of impacts if any, these representatives anticipated as a result of the presence of the OWMC facility and the basis upon which the views expressed were founded.

From the outset it was recognized that the tourism industry's well-being is a function, in large part, of perceptions held by tourists and by tourism industry operators.* Thus, much of the information obtained through these interviews centred around two major questions:

- o Would the intended/actual introduction of the OWMC facility to a particular community affect tourists' perceptions of the destination and influence their vacation destination decisions?

- o Would the intended/actual introduction of the OWMC facility to a particular community affect tourism operators' and/or investors' decisions regarding new development, expansion plans and/or upgrading?

As the confidential nature of these interviews precludes the attribution of comments to specific individuals, a summary of public and private sector concerns has been prepared on an aggregated basis. A list of those interviewed is also included (see Table 30).

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* It is not suggested here that decisions made by tourists and tourism industry operators are entirely guided by perceptions. Indeed, other factors such as price, travel distance, activity preferences, etc. enter into the decision-making process.

It should be stressed that the views expressed by those interviewed were considered as only one input contributing to our analysis. Because many of those people interviewed would have a direct stake in the outcome of the selection process, the results of the interviews were treated by the consultant primarily as useful background. It was recognized that information collected and analyses performed by us and other consultants contributing to the site selection process could result in the alleviation (if not elimination) of many of the concerns expressed during the interview process.

Appendix A represents an attempt to express in as comprehensive and unedited manner as possible the comments received from those interviewed.

BASIS FOR INTERVIEWEE SELECTION

Selection of public and private sector representatives to be interviewed were made by Laventhol & Horwath with the assistance of the Institute of Environmental Research and the OWMC.

Every attempt was made to include for each of the siting options:

- Public/government officials involved with tourism development;
- Associations, interest groups, committees and councils which might have tourism-related concerns;
- Businesses which could have tourism market components, and which were:
  - within a two-kilometre range of each site; and/or
  - situated along proposed access routes to any of the sites; and/or
  - could otherwise be affected, from a tourism perspective, by the facilities.

INTERVIEW PROCESS

Each prospective interviewee received a letter from the OWMC indicating that Laventhol & Horwath would like to discuss any tourism-related concerns which they had in regard to the proposed OWMC facility.

Tourism consultants of Laventhol & Horwath arranged to meet each of the interviewees.

Upon completion of each interview, a "contact sheet" was prepared by the consultants detailing the discussions and findings.

Copies of all contact sheets were submitted to IER and the OWMC on the basis that information relating to a specific interviewee was to remain confidential.

INTERVIEW RESULTS

The interviews were conducted over a period of three months.

A brief summary of the comments received for each of the four study areas follows. A more detailed accounting of these comments is included in Appendix A. By including these comments in our report, we do not infer that concerns expressed are/are not valid.

Niagara Falls

Without question, the greatest concern regarding potential tourism impacts for any of the eight candidate sites was shown by both the public and private sector representatives interviewed regarding Niagara Falls.

It was forwarded that Niagara Falls is of global significance and that any action taken which could jeopardize its tourism appeal would be shortsighted. Many interviewees felt that the presence of the OWMC facility in Niagara Falls would have an adverse impact upon the tourism industry.

The major concerns expressed were that:

- The image of Niagara Falls, Canada as an aesthetic, clean and safe tourism destination would be damaged, particularly as a result of adverse media attention and the potential association by tourists of the OWMC facility with the dump sites and Love Canal on the American side of the Falls. While estimates of potential impact varied, opinions were expressed that tourism visitation would decrease, and with it, employment, revenues and tax dollars.

- It was also forwarded that if an incident or accident (on-site or access route-related) were to occur in Niagara Falls, media attention would be North American and potentially world-wide. It was the view of a number of those interviewed that the impact upon tourism visitation, the investment climate and upon the economy of the City and the Region could be severe. A number of those interviewed felt that the assumption of a "fail-safe", non-accident OWMC facility was unsupportable.

- Environmental/safety-related concerns were expressed by many of those interviewed. Odour, visual, traffic and water contamination-related impacts were frequently cited.

- Expansion/upgrading plans would be either delayed or cancelled as a result of uncertainty regarding eventual impacts upon tourism visitation, resulting potentially in a loss of competitive position vis-a-vis other tourism destinations and the long-term decline of tourism in Niagara Falls.

- A number of interviewees felt that the major significance and value of Niagara Falls' tourism industry not only to the City and Region but to Ontario and Canada as a whole was not being recognized by the Government as reflected in the fact that it would consider Niagara Falls as a candidate area.

West Lincoln

Concerns expressed related to the loss of aesthetic appeal which could affect day-trip and pass-through traffic from travelling through the area, as well as the incompatibility of such facilities with future tourism development in Festival Country.

Milton

Almost all of those interviewed were concerned with the incompatibility of the proposed OWMC facility with the use of surrounding areas for recreational purposes by residents and tourists.

In addition, it was felt that the future potential of Halton Region's tourism industry could be affected as a result of the OWMC facility's presence, i.e. the image of Halton as a clean, healthy environment could be damaged.

TABLE 30

LIST OF INTERVIEWEES

Community	Contact Name	Contact Organization/Company
Niagara Falls	John Szoke	Arpad Hungarian Centre
	Leonard Cade	Best Western Cairn Croft
	Leslie Daniels	Better Understanding Committee
	Hans Draeger Dennis Gilmere	Boy Scouts of Canada
	Doug Darbysen Gretchen deBoer	City of Niagara Falls - Planning Department
	Robert Sones	Director of Recreation, City of Niagara Falls
	William Smeaton	Mayor, City of Niagara Falls
	Larry Dworkin	Dworkin Communication Inc.
	Peter Sobol	Ecological & Environmental Advisory Committee
	Oerst Samitz	Fiddlers Green Motel
	Ms. Lundy	The Lundy House
	John Holer Brian Crawford	Marineland
	Brian Antonsen	Ministry of Tourism & Recreation
	Bill Newman Barb Bolus	Minolta Tower
	Tad Stelmaszynski	Montrose Motor Inn
	Mr. Walsh	Niagara Bruce Trail
	Patricia Hayes	Niagara EcoSystem Task Force
	Nykola Kolankiwsky	Niagara Falls Art Gallery
	Charles Chataway John Garfield	Niagara Falls Business & Industrial Growth Agency

TABLE 30
LIST OF INTERVIEWEES
(Continued)

Community	Contact Name	Contact Organization/Company
Niagara Falls	Mr. Gandy	Niagara Falls Chamber of Commerce
	Charlie Pryor	Niagara Falls Nature Club
	Mr. Pat Davies	Niagara Falls Nature Club
	John Bolvansky	Niagara Falls Visitor & Convention Bureau
	Mark Gatley	Niagara Falls, N.Y. Visitor & Convention Bureau
	Theo Morin	Niagara Meadows Holiday Park
	Joe Montgomery David Cash	Niagara Region Development Corporation
	Betsy de Rose	Niagara Region - Tourist Council
	Alan Veale Corbin Cambray George Nicholson Don Campbell	Region of Niagara - Planning
	Joe Kenney	Oaklands Golf Course
	Fran Mahady	Oneida Canada
	Ross Cooper	Ontario Hotel & Motel Association
	Margherita Howe	Operation Clean
	Harry Oakes, Jr.	Park Hotel
	Audrey Barnsley	Peninsula Field Naturalist Club
	John MacPhee	Rolling Meadows Golf & Country Club
	Ray Thompson	Skylon Tower
	Tony Sagat	Social Planning Council of Niagara Falls

TABLE 30

LIST OF INTERVIEWEES

(Continued)

Community	Contact Name	Contact Organization/Company
Niagara Falls	Albert Morland	Social Planning Council of Niagara Falls
	Mr. Rigby	Welland Securities - Oakland Tent & Trailer Park
	Jack Tanner	Willo-dell Golf Club
	Paul Smith	York Hannover Amusements
	Jerry McIntosh	Your Host Best Western Hotel
West Lincoln	Bob McConkey	Festival Country
	Barb Guyatt	Niagara Conservation Authority
	Marie Poirier	Niagara Conservation Authority
	George Miller	Silverdale Gun Club
Milton	Chuck Shields	Lido Golf Club
	Robin Kitchen	Town of Milton Planning
	Helen McCloud	Mountainview Restaurant
	Doug Rigg	Town of Oakville Parks & Recreation
	Kathy Warren	The Ranch-Trail Riding
	Rasheed Mohammad Dave McCleary	Region of Halton Planning & Development Department
	Ross Watson	Trafalgar Golf & Country Club
	Paul Martin	Wyldewood Golf & Country Club

SUMMARY

Representatives from each of the candidate communities held concerns regarding the introduction of the OWMC facility. These concerns are taken into account in the following section which examines potential tourism-related impacts associated with the intended/actual presence of the OWMC facility.

SECTION V

SITES IMPACT ANALYSIS

INTRODUCTION

Previous sections of this report addressing the economic and tourism bases of the study communities, individual site characteristics and the views and concerns of community representatives form the basis for analysis of tourism-related impacts associated with the proposed OWMC facility.

Identification of the impacts associated with each site will, in turn, provide a basis for the subsequent section of this report (Section VI) in which sites and siting options are ranked on a "preferred" to "least preferred" scale from a tourism perspective.

TYPES OF TOURISM IMPACTS

Based upon the findings described in Sections II, III and IV, two distinct types of tourism impacts were identified:*

- Impacts upon the image/character of the host community with implications for its economic base;
- Impacts upon the individual businesses within the study community.

The nature and significance of these types of impacts are discussed below.

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* These two types of impacts are closely interrelated in some cases, i.e. the occurrence of one impact may give rise to or exacerbate another type of impact.

Impacts upon the Study Community's Image/Character and Economic Base

Definition of Impacts

The potential and/or actual presence of the OWMC facility may have an adverse impact upon the tourism industry and the overall/economic base of the study community, i.e. a change in the perceived image/character of the community on the part of tourists, tourism operators and potential investors may lead to reduced volumes of tourist visitation, expenditures and or private/public sector investment in the tourism sector.

Significance of Impacts

A reduction in tourist visitation and/or the damaging of the tourism investment climate may lead to a loss of tourism revenues to unemployment, financial hardship for existing businesses and/or to a loss in the competitive position of the community as a tourism destination.

Means of Assessing Impacts

The nature and magnitude of impacts relating to the image/character and economic base of the community may be assessed using as a base, the following **indicators:**

- Characteristics of the study community, i.e.:
  - the size and nature of the tourism industry;
  - the relative stature and importance of tourist visitation and expenditures and the associated direct and secondary impacts upon the local revenue and employment basis;
- The impact of OWMC-related media attention upon tourist and investor decision-making;
- The type and magnitude of effects potentially occurring as a result of the perceived/actual presence of the OWMC facility (e.g.

reductions in tourist visitation and expenditures, tourist per capita expenditures, and levels of tourism investment).

Impacts upon Individual Tourism Operations

Definition of Impacts

Those tourism operations having physical proximity or visual access to the OWMC facility may be adversely affected in the undertaking of their daily, on-going business.

Significance of Impacts

Tourism operations may experience reductions in tourism revenues and/or a reduction in the quality of their tourism product as a result of impacts associated with the OWMC facility (e.g. increased traffic, noise, dust, odour).

Means of Assessing Impacts

A number of indicators may be used to assess the magnitude and nature of impacts upon individual tourism operations. These indicators include:

- The number of tourism operations affected;
- Characteristics of these establishments (e.g. proximity to the OWMC facility, volume of tourist visitors and associated revenues);
- The severity of the potential impacts (e.g. traffic, dust, odour, visual access).

The remainder of this section will be devoted to the analysis of the above types of impacts vis-a-vis the candidate sites and communities.

NIAGARA FALLS: TOURISM-RELATED IMPACTS

Introduction

The potential and/or actual presence of the OWMC facility on either the two siting options in the Niagara Falls region may or may not have a high potential of impacting upon the City's tourism industry. The likelihood, nature and potential magnitude of effects are assessed below with respect to the two types of impacts described at the beginning of this section.

Impacts upon the City of Niagara Falls' Image/Character and Economic Base

The following analyses address:

(1) The impact (if any) of the OWMC facility (either PI-27E or LF-1E) upon the character/image of Niagara Falls as held by potential tourist visitors and by potential tourism investors/developers;

(2) The impact which any change in image identified in (1) above is likely to have upon levels of tourist visitation and/or future tourism development potential; and/or

(3) The impacts upon the economic base of Niagara Falls which are likely to occur in the event that levels of tourist visitation fall and/or future development potential is adversely affected.

To examine the often elusive, psychological realm of image and to predict its impact upon behaviour and decision-making, we forward a hypothesis relating to a change in image and vacation decision-making, identify the assumptions which, if true, would validate such a hypothesis and then test each assumption as to its validity. This same procedure will underly our subsequent analyses of impacts associated with West Lincoln and Milton.

Impacts on Tourist Visitation Levels and Expenditures Associated with a Change in the Image/Character of Niagara Falls

Hypothesis No. 1:

A change in the perception held by potential tourists/visitors of the study area may result from the hearings regarding the presence of the OWMC facility. This change in perception may deter potential visitors from selecting the destination for vacation purposes.

For this hypothesis to be true the following **assumptions**, which will be examined on an individual basis, must also hold true:

1. Public hearings will be held in the community associated with the selected site to discuss the selection and will elicit comments and evidence which suggest that the OWMC facility would be harmful to visitors and/or could adversely affect the vacation experience.

2. Representatives of the print, radio and television media will cover the hearings and will highlight the controversies which arise (i.e. they will focus on the "bad news" more than the "good").

3. The "mediasheds", i.e. the areas to which the above-mentioned media communicate, will encompass some part of the primary tourist markets of the selected siting options and potentially a part of the secondary market areas. At the very least, some part of the primary tourist markets will be exposed to the stories addressed in the public hearings.

4. The nature of the stories will be such that some proportion of those people considering the study area as a potential tourist destination will choose not to go to the area or will spend less time in the area

as a result of the effect of the media upon their perceptions, images and expectations of the community's suitability as a vacation destination.

5. The magnitude of the perception-related impact upon vacation decision-making and tourism visitation levels/expenditures will be a function of:

   a) The stature and profile of the study area as a tourism destination;

   b) The extent to which the public hearings create controversy around the safety, compatibility and/or suitability of the OWMC facility to the vacation experience;

   c) The intensity with which such controversy is communicated by the media, i.e.

      (i) the geographic scope of coverage;
      (ii) the duration of coverage; and,
      (iii) the degree to which stories are highlighted (i.e. front versus backpage print coverage, documentary versus short television/radio coverage);

   d) The extent to which media coverage is derogatory and/or controversial in nature;

   e) The extent to which the recipients of media stories are sensitive to the issues covered; and,

   f) The strength of potential visitors' desires to visit the study area on either:

      (i) a primary destination basis; or
      (ii) a short 'pass through' basis.

Limitations of the Information Base

Our hypothesis suggests that the perceived presence of the OWMC facility could have an adverse impact on levels of tourist visitation and expenditures within a candidate area. However, the legitimacy of the cause-and-effect linkage between public hearings- elicited media attention regarding the OWMC facility and a change in vacation decision-making inherently assumed here, is not "prima facie" and must be examined in depth.

A thorough search of empirical and secondary research material and interviews with professionals in the tourism field as well as our own knowledge provide information of relevance to this suggested linkage. This information addresses, among others:

- The effects of media upon potential visitors to a tourism destination;
- The types of media to which such potential visitors are exposed;
- The importance of a tourism destination's **image** to the vacation decision-making process;
- The multitude of variables and factors which can influence vacation decisions;
- The effects of negative media attention;
- The sensitivity of North Americans to the industrial waste management issue; and,
- Case studies which either have been or are being carried out to assess the impact upon visitation of the introduction of nuclear waste and nuclear power generating installations to a tourism environment.

It is essential to note, however, that to the best of our knowledge no empirical research has been performed in North America addressing:

- The impact upon tourism of public hearings held to discuss the possible introduction of the OWMC facility to a tourism location; or,
- The precise nature of the linkage between negative media attention and vacation decision-making.

Therefore, our analysis must be based upon the application of present knowledge to the unique circumstances presented by the OWMC site selection process.

Limitations of the Specification of The Magnitude of Perception-Related Impacts

In the absence of empirical research addressing situations comparable to the OWMC site selection process, projection of the magnitude of any perception-related impact is impossible to prove or, for that matter, to disprove. Not only is a future event being examined, but there are a myriad of complex variables relating to human behaviour to be considered which, by their nature, are not predictable. (These variables will be described later in this section.) Our analysis can only form the basis for reasonable speculation regarding perception-related impacts. Our estimates will be based upon:

- Our analysis of the candidate area's tourism characteristics;
- The base of relevant empirical and secondary research which is available; and,
- Our experience as tourism professionals.

To assess perception-related economic impacts upon tourism the validity of each of the assumptions noted earlier in this section will be tested.

Assumption 1: Public hearings will be held to discuss Niagara Falls' siting options and will elicit comments and evidence which suggest that the OWMC facility would be harmful to visitors and/or could adversely affect the vacation experience.

Test of the Assumption:

- It is most likely that public hearings will be held in the study community of the selected site, to discuss the conclusions emerging from the site selection process and the related research undertaken on the OWMC's behalf.
- The duration of such hearings is uncertain at the time of writing this report. However, we have assumed the hearings will occur over a period of twelve months, commencing in January and ending in December of 1987.
- Government officials and tourism operators from Niagara Falls (see Section IV), have indicated to us that a well-funded and organized case against the siting of the OWMC facility in Niagara Falls will be made at the public hearings. An indication that the endangering of the tourism industry will "be fought to the death" was mentioned by a number of people we interviewed. In addition, a reputable tourism consulting firm has been hired to prepare the City's argument before the hearings.
- Notwithstanding the efforts of the OWMC to dispel the concerns of the City prior to and/or during the hearings, it is our considered view that the City will present both a technical case and an emotional appeal against the introduction of the OWMC facility to Niagara Falls. The nature of their case will, at the very least,

address the concerns expressed to us on repeated occasions by both public and private sector representatives. While it is inappropriate to predict in any detail the case that will be made by Niagara Falls' representatives, the general areas which are almost certain to receive focussed attention include:

- The alleged incompatibility of the OWMC facility with Niagara Falls' image as a vacation environment;
- The alleged effect of previous media attention addressing the Love Canal and Niagara River dump sites/pollution upon the City's competitiveness in its increasingly tough fight for the tourism dollar;
- The alleged inability of the OWMC to guarantee that no accident will occur;
- The potential impact upon the tourism industry which an accident or incident related to the site would have, particularly if personal danger, injury or death were involved;
- The traffic problems which could arise from the transport of waste to the site; and,
- The impact of negative media coverage which could occur if either of the Niagara Falls siting options is selected upon the Falls' image as an attractive and clean vacation environment, as well as upon its competitive position vis-a-vis other tourism destinations.

Our assumption that such issues as those noted above will be raised is founded upon the in-depth analysis of the OWMC-related tourism concerns held by Niagara Falls representatives and upon our judgment of the kind of argument a reputable tourism consultant would develop.

Assumption 2: Representatives of the print, radio and television media will cover the hearings and will tend to highlight the controversies which arise.

Test of the Assumption:

- For the hypothesis linking the potential presence of the OWMC facility in Niagara Falls with declines in levels of tourism visitation to hold true, awareness of the facility on the part of the potential tourist market is an essential precondition.

- It has been indicated to us by members of the print and television media in Toronto and Buffalo that the hearings would be covered by their representatives. While the scope of media representation at the hearings cannot be precisely defined at this time, it is our assumption that the hearings will receive media coverage, and that some part of Niagara Falls' tourist market will be exposed to information regarding the public hearing discussions.

  Our assumption arises from the fact that since the initial announcement of the eight candidate sites, attention by the print and electronic media has been given to the OWMC story and associated issues as they have emerged (e.g. Globe and Mail, June 1, 1984, p. M5 "Honeymoon capital protests against waste site proposal").

- It is our further assumption that the media will highlight and feature those issues which are controversial. That is, the technical data and rebuttal by the OWMC of Niagara Falls' arguments against the facility will receive considerably less attention than the Niagara Falls' arguments themselves.

Assumption 3: The "mediasheds", i.e. the areas to which the media communicate, will encompass some part of the primary tourism market of Niagara Falls, and potentially some

portion of its secondary market. At the very least, some part of the primary tourist market will be exposed to the stories addressed in the public hearings.

Test of the Assumption:

o As noted in Section III of this Report, an estimated 53% of visitors to the Niagara Region are American, 60% to 80% of which are believed to come from the Great Lake States, with a minimum of 22% from New York State. Ontario residents are believed to comprise 38% of visitation to the area, with the remaining 8% originating from Quebec (4%), other provinces (3%) and other countries (1%). Thus, some 70% to 80% of all visitors to Niagara Region come from Ontario and the Great Lake States. (While the percentages applying to the City of Niagara Falls may vary from those of the Region, the primary market area of the City and region are believed to be basically the same.)

o As noted earlier, the number of different media represented at the hearings is impossible to predict. However, our interviews with members of the print and electronic media as well as a communications consultant indicate that:

- Ontario-wide coverage will be given to the hearings;

- If controversial issues pertaining to the safety and maintenance of Niagara Falls as a major tourism destination are effectively placed into question, news coverage will reach the Buffalo "mediashed"* and may well receive Canada-wide attention;

- If derogatory expressions such as "garbage dump" or "toxic waste centre" are attached to Niagara Falls in the hearings, media coverage could extend throughout North America and/or worldwide, due to the Falls' global profile as a tourism destination and the high degree of likelihood that the OWMC facility will be compared to Love Canal to sensationalize the coverage;

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* Extending to Oshawa, Ontario to the northeast, Batavia, N.Y. to the east and Bradford, Penn. to the south.

- The issue of toxic and chemical waste is perceived to be a subject increasingly worthy of media attention; and,

- The duration and intensity of media coverage are impossible to predict at this time.

o Therefore, it is our operating assumption that at the very least the hearings will receive Ontario-wide and Buffalo and Niagara Falls, New York-based coverage. To assume any less coverage than this would be unrealistic based upon the comments of the media representatives consulted, the types of issues which are likely to arise (see our discussion of Assumption 1), and the scope of media attention received since the initial announcement by the OWMC of the eight candidate sites in 1984.

We do not discount the possibility that controversial stories presented by the Buffalo and Ontario media may be picked up by the U.S. and Canadian national networks. In fact, more extensive coverage should be considered to be probable in view of the Falls' profile as one of the most significant attractions in the world, the strength of the presentation which can be expected from Niagara Falls-based opposition to the OWMC and finally, in view of the comments received from media representatives.

Assumption 4: **The nature of the stories will be such that some proportion of those people considering Niagara Falls as a potential tourist destination will choose not to visit the area or will spend a minimum of time to see the Falls, as a result of the effect of the media upon their perceptions, images and expectations of its suitability as a vacation destination.**

Test of the Assumption:

- There are at least two important "sub-assumptions" inherent in the above statement:
  - The perception (image) of a destination plays a critical role in vacation-related decision-making; and,
  - People's perceptions of a destination can be affected by exposure to media stories (i.e. in this case, by exposure to media coverage of hearings).

In order for the hypothesis to be true, the above "sub-assumptions" must also prevail. An analysis of the role which image and perception plays on vacation decision-making follows.

The Nature of Vacation Decisions

While considerable research has been devoted to examining the process by which a consumer selects retail products, surprisingly little empirical research has addressed the choice of travel destinations. A note of clarification regarding the term "destination" is worthwhile at this point. In the context of this report, we consider "destination" to refer to the location which is most responsible for motivating people's trips and the location around which people plan their itineraries. It does not necessarily mean, therefore, the location in which one stays the longest. Thus, for example, while a family might only spend two hours in Niagara Falls and then go to Toronto for three days, Niagara Falls would, for the purposes of this report, be the vacation destination, if it was the primary place which people wanted to see.

Moreover, most of the work that has been done in the area of vacation choice has dealt with the ways in which advertising and promotion can be used to create favourable images of various travel destinations. This work, it should be noted, is itself based on the premise that image affects people's decisions regarding their choice of vacation destination.

Following is a summary of the findings of those studies (see the end of this section for references) which pertain to the importance and complexity of image and perception in the vacation decision-making process:

- "Explaining travel behaviour is not easy. There are just too many factors that influence an individual's behaviour...one must understand how people **perceive** such things as destination areas, air travel, travel distances and travel advertising; how they **learn** to consume and to travel; how they make decisions; and how **personality** affects those decisions. One must learn what **motivations** influence the individual's travel decisions and how these motivations interact. We must understand how **attitudes** are formed and how they influence behaviour. And we must know how various **group influences** affect travel behaviour". (Reference No. 1, p. 4)

- "The perceptions held by potential visitors about an area may have significant influences upon the viability of that area as a tourist-recreation region". (Reference No. 5, p. 1)

- "The attractions of tourist destinations arise to a large extent from the images they present, images which are conjured up partly from direct or related experience, partly from information and publicity. An image is, in fact, the experience of all objective knowledge, impressions, prejudices, imaginations and emotional thoughts by which a person or group judges a particular object or place. The tourist image of a destination is of utmost importance in tourism development; a choice in destination is usually not made objectively but according to the image projected". (Reference 2, p. 10)

- "The first marketing implication of this paper for tourism marketers...is that they should always try to portray or develop favourable images of their respective tourist areas in order to enhance tourists' choice of (preference for) those areas as vacation destinations...Generally the more favourable the perceptions of a vacation destination the greater the likelihood of choice of that destination over other less favourable perceived destinations..." (Reference No. 3, p. 12)

- "These different preferences and perceptions are a function of experiences (good and bad) on previous visits, degree of familiarity with the region(s), cultural background, geographic origin and prior expectations to name a few". (Reference No. 3, p. 13)

- "...it is important to recognize that...what is most relevant in the environment is not what is objectively there - the physical field - but what is perceived - the psychological field". (Reference No. 4, p. 110)

- "Images are as important as things. Therefore, the images held for competitive regions must be recognized. A region that has important internal factors and is readily accessible, but is cursed with a reputation that repels visitors will have difficulty in exploiting its resources for tourism-recreation development". (Reference No. 4, p. 167)

- "The image of a destination area was ... a critical factor in the destination choice process." (Reference No. 6)

- "Finally, while image is probably a significant variable weighing upon the success of a region, its relative magnitude as compared to other feasibility factors such as access, intervening opportunities, population concentrations, physical facilities and so forth, is not known. Given the level of understanding, it is also difficult to determine the ease or difficulty with which images can be changed or reinforced." (Reference No. 5, p. 1)

Clearly, while image is viewed as an integral factor in the vacation decision-making process, the wide variety of behavioural characteristics and variables* which determine and influence images and perceptions make it difficult to separate out the magnitude of its effect.

In addition, research reveals that images held by potential vacationers of destinations may or may not be accurate:

- "Fact and perceived image of some state or tourist-recreation area region characteristics may not necessarily be the same. Of course, this is the crux of image as it relates to tourism development. Whether perceptions are right or wrong is not as important as what potential visitors believe and whether or not they are thought to be congenial to the recreation region." (Reference No. 5, p. 6)

Thus, while an OWMC facility may, in fact, be entirely safe and benign, contrary and negative perceptions may develop and influence the behaviour of people considering the Falls as a vacation destination.

The role of media and of "negative" images is also addressed directly and indirectly by a number of researchers:

- "Information may perform several functions on the different stages of the vacation sequence: (a) It may be used to **sensitize** people favourably to the idea of having a vacation, by engendering particular expectations and creating "fantasies"; (b) It may **pursuade** a household or a reluctant partner to take a particular vacation; (c) Background information ... may assist choices and **heighten appreciation** of the vacation destination ... Negative information or rejected alternatives will be important". (Reference No. 8, p. 104)

- "The major objectives in advertising are to make the tourist products known, to create a favourable image of the country or region and to correct mistaken impressions. Efforts have to be concentrated on the main markets ... The continuity, homogeneity and regularity of the messages conveyed through advertising are of the utmost importance." (Reference No. 2, p. 181)

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* e.g. cost, travel distance, activity preferences.

- "Efforts cannot be directed exclusively to promotion of recreation and tourism resources. These efforts must be supplemented with renewed efforts to address the images which have so much to do with an area's tourism development. Efforts to eliminate negative images must be directed individually at each travel market, for it is only when one begins to see success in these efforts that we can achieve an appropriate international travel potential in a highly competitive field." (Reference No. 4, p. 5)

- "If the recreation and tourism resources of several areas seem equally attractive, the selection of where to visit will be determined partly on the basis of where negative consequences are perceived as least likely to occur ... The more favourable the perception, the greater the likelihood of choice from among similar alternatives." (Reference No. 7, p. 2)

- "Another prime source of information leading to image formation by potential foreign visitors is the daily news. United States news is monitored only by the ethic of the reporter and his and her superiors. Extensive coverage can result in a negative image of life in or visitation to the United States ... a local incident can be interpreted as a national problem." (Reference No. 7, p. 2)

- In general, people tend to avoid contradictory or dissonant information. They seek information that agrees with their beliefs, and they try to ignore information that does not. What happens, though, when an individual is confronted with a stimulus that conflicts with his attitudes, values or prior information? Under these circumstances, the meaning of the stimulus may be changed in a way that deviates from objective reality ... Generally, the more ambiguous or complex the stimulus, the greater the opportunity for

> the individual to see what he wants to see." (Reference No. 1, pp. 35-36)

According to Dr. Clare Gunn, an internationally known author of tourism books (Reference No. 9), an examination of the economic impact of an offshore Mexico-based oil spill upon the Texas coast elicited the opinion of tourist operators that negative media coverage was far more serious than the oil spill itself. It was purported that in some cases, films used by the media to cover the story were not even of areas along the Texas coast. Tourists moved inland to non-beach resorts as a result of adverse media attention despite the fact that some beaches were unaffected. (It should be noted that while this example points out the possible impact of adverse media attention, it is not exactly comparable to the OWMC situation, which will involve a public hearing as opposed to an incident of some kind.)

Thus, notwithstanding the difficulty of measuring the psychological impact of negative image-provoking information, a causal link is forged in the literature between adverse media attention and changes in vacation decision-making.

Indeed, the above research suggests that the introduction of negative information about the Falls could prompt a household considering a number of alternative destinations to choose a place "where negative consequences are perceived as least likely to occur". (Reference No. 7, p. 2)

A number of other factors involving the media, image and vacation decision-making are of relevance to this analysis:

- A survey of travelers and non-travelers (References Nos. 10 & 11) conducted in 1978/79 and 1982 reveals that travelers are heavy newspaper and magazine readers and that they are more attuned to the print media than is the population as a whole. These studies also indicate that blue collar travelers are almost twice as likely to be heavy viewers of television as white collar travelers. Package (group) travelers tend to be heavy readers of both newspapers and magazines. ("Heavy" readers are defined as those reading newspapers/magazines in excess of nine hours per week. "Heavy" television viewers are defined as those spending in excess of fifty hours per week watching television.)

- A survey conducted by the Ontario Ministry of Tourism and Recreation (Reference No. 12) found that while the major source of vacation ideas of Ontario residents originated from friends and relatives (35%), newspapers and television were cited by 28% of respondents in the summer of 1983 and by 35% of respondents in winter, 1984 as being important. American respondents also cited friends and relatives as primary sources of vacation ideas (43% in summer, 1983 and 50% in winter, 1984). However, newspapers, magazines and television were also identified by 52% and 80% of respondents in summer, 1983 and winter, 1984 respectively.

- As to the retention of information received by potential travelers, it is suggested by Mayo and Jarvis (see Reference No. 1) that:

> "Information that is received by an individual may or may not be retained by her over a period of time. Generally, it is believed that individuals store in memory that which is relevant to their needs, values and predispositions ... there is some evidence to support the proposition that retention is likelier to occur, and with greatest accuracy, when the information to which we are exposed is consistent with our attitudes, biases and lifestyles ... Only those perceptions which are retained can influence subsequent behaviour. If on his first visit to a major U.S. city a farmer from the Midwest is mugged, the experience will stand out for years in his mind, forming the basis for his overall perception of that city. He may forget, however, many enjoyable experiences he had while visiting..." (Reference No. 1, p. 36)

Based upon the above-cited research addressing vacation decision-making, the following salient points emerge:

- o Image is considered to be a very important determinant of vacation destination choice;
- o Negative image changes travel patterns;
- o Media can influence a tourism destination's image;
- o Travelers are exposed to the media.
- o Because the formation of image is influenced by several behavioural and information-related factors, measurement of the impact of the introduction of a negative stimulus is difficult if not impossible to predict with any degree of certainty.
- o Retention of information is more likely to occur when the message being conveyed is clear and unambiguous and when it is consistent with the needs, beliefs and predispositions of the receiver.

As stated in the first three assumptions underlying our hypothesis, several conditions must be present in order for there to be an impact upon tourism on Niagara Falls as a result of the potential presence of the OWMC facility. Setting aside for the moment the question of magnitude of impact (which will be dealt with later in this section), it is our considered view based upon the above analysis that there will be an impact upon tourism in Niagara Falls, i.e. that:

- o Public hearings will be held and will elicit controversies worthy of media coverage and focus (Assumption No. 1);
- o Such coverage will reach some part of the City's primary market at the very least, and could extend into secondary if not worldwide markets if the types of controversy arising place the health,

safety and suitability of Niagara Falls' tourism environment into serious question (Assumption No. 2);

- o Stories will reach the traveling population which is heavily attuned to the media (Assumption No. 3);
- o Potential visitors to Niagara Falls whose vacation decisions are most likely to be affected by media stories will be those who:
  - are sensitive to health, safety and/or environmental issues pertaining to toxic waste; and/or
  - are considering alternative travel destinations; and/or
  - do not have a serious desire to see the Falls; and/or
  - live in (that part of) the primary trade area receiving the heaviest coverage; and/or
  - are considering Niagara Falls as a destination spot as their primary motivation (notwithstanding the fact that they may only stay for a brief period of time and head on to "secondary" locations such as, perhaps, Toronto).

Of some relevance to this discussion and to the analysis of OWMC- related perceptual impacts is a situation currently underway in Utah. The U.S. Department of the Environment (DOE) is considering nine candidate sites as potential national repositories for nuclear waste. One of these sites is located within one mile of Canyonlands National Park (CNP) in Utah.*

Feeling that the DOE had not adequately addressed its concerns, the Government of Utah asked a team of faculty members from the University of

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* It should be noted that the CNP is a wilderness park. While not directly comparable to Niagara Falls, this Utah example is useful to the Niagara Falls situation as it involves consideration of the impact upon the image of a tourist destination, of a hazardous waste treatment facility.

Utah and Utah State University to put together a workshop on potential impacts of the Repository to National Parks. Over twenty tourism, parks and recreation and legal specialists from the United States participated in these November, 1984 discussions, among them Dr. John Hunt (see Reference No. 5). It should be noted that a number of attendees had publicly taken a position against the siting of the facility next to CNP.

The purpose of the workshop was to identify possible issues and questions which should, but had not been, addressed in the environmental assessment performed by the DOE on the Utah site. (See Reference No. 16, p. 2)

Three levels of analysis were focussed upon:

a) Implications for Canyonlands National Park itself;
b) Implications for the larger Colorado Plateau Region;
c) Implications for National Parks in general.

For each of the levels, concerns were identified and ranked in terms of their relative degree of importance.

The findings of these analyses for levels A and B are summarized below:*

Level A

- "The presence of the repository would likely have substantial effects on the character and the meaning of CNP ... the actual presence of the repository does not have to be noticed by individuals ... If we know that a repository is there, it will affect our experience ..." (p. 9)

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* Level C analysis is not relevant to this study.

Level B

- "One of the major impacts that could be affected by the repository in the Region is tourism ... If people find the notion of a repository undesirable as a tourist destination, then they may choose not to visit the Region." (pp. 25/27)
- "Tourism image research has shown that people's perceptions of places have a great impact on decisions to participate. The link to reality is irrelevant; it is what people believe to be there that is important, it is their image that guides decisions." (p. 28)
- "Even though the region possesses attributes valued by the public, the presence of the waste dump, especially when covered by the national media, will dominate people's images of the Region." (p. 29)
- The most important regional concern (from among the six identified) was determined to be the impact upon the Region's image. (p. 53)

It should be emphasized that the findings of these discussions and of a subsequent report (November 30, 1984) examining the potential effects of the repository upon recreation, tourism and national parks (see Reference No. 18) did not include specific projections of tourism-related impacts. Rather, the Institute of Outdoor Recreation and Tourism, acknowledging the inadequacy of existing data to prepare projections, concluded that:

> "It is our collective professional judgement that no adequate assessment of the potential impacts of repository characterization, construction or siting can be made without these analyses. In order to define these information needs more clearly, we have included .. proposals for specific research projects ... [including] 10. A study of the impact of siting on the travel decisions of potential visitors to the region." (Reference No. 18, pp. 53 and 55)

Thus, while a major concern of participants in the Utah-related discussions was that of image-related impacts, the difficulty of providing impact projections in the absence of quantitative empirical research was acknowledged and recommendations made that more detailed analyses be performed.

The Utah case would appear to reinforce our judgement that some impact upon Niagara Falls' level of tourism visitation will be incurred as a result of the OWMC site selection process.

To our knowledge no empirical studies have been performed addressing the strength of desire potential visitors have to see the Falls and/or the extent to which potential visitors are considering alternative destinations. It is our view that, while Niagara Falls is a unique worldwide attraction, there will be some visitors who select alternative destinations as a result of the OWMC hearings, i.e. there are other destinations which will satisfy people's vacation needs if the Falls' image is adversely affected.

It must be emphasized that our judgment that an impact will occur cannot be irrefutably proven. In order to ensure that our analyses are based upon the most comprehensive information available, we have contacted a number of the authors of publications noted in our list of sources. (These interviews are cited at the end of this section). While all of these sources noted that no impact could be proven, several voiced their opinion that an impact would result under the assumption of conditions noted above. (No source interviewed indicated that he believed there would be no impact).

Assumption 5: The magnitude of the perception-related impact upon vacation decision-making and tourism visitation levels/ expenditures will be a function of:

a) The stature and profile of the candidate area as a tourism destination;

b) The extent to which the public hearings create controversy around the safety, compatibility and/or suitability of the OWMC facility to the vacation experience;

c) The intensity with which such controversy is communicated by the media, i.e.

- **(i) the geographic scope of coverage;**
- **(ii) the duration of coverage; and,**
- **(iii) the degree to which stories are highlighted (i.e. front versus backpage print coverage, documentary versus short television/radio coverage);**

d) The extent to which media coverage is derogatory and/or controversial in nature;

e) The extent to which the recipients of media stories are sensitive to the issues covered; and,

f) The strength of potential visitors' desires to visit the candidate area(s) on either:

- **(i) a primary destination basis; or**
- **(ii) a short 'pass through' basis.**

Test of the Assumption:

In the absence of empirical research addressing a clearly comparable situation, the difficulty of assigning a magnitude of impact (e.g. a percentage loss in visitation or reduction in expenditures) is difficult. Our search of the literature and our interviews of experts in the tourism/behavioural fields illustrate the complexity of the largely unexplored realm of vacation decision-making behaviour. Indeed, the actual impact will be a function of variables which are unpredictable and can only be speculated upon. This unpredictability pertains, among others, to:

- The geographic range of media coverage;
- The degree to which the media communicates ambiguous as opposed to direct messages regarding the stories arising out of the hearings;
- The degree to which stories relating to the hearings are highlighted - which is itself dependent upon such equally unpredictable variables as the level of importance of other non-related news stories occurring at the time of the hearings;
- The numerous factors pertaining to market behaviour and predispositions;
- The duration of media coverage which is virtually indeterminable at this time.

In an effort to provide an estimate of perception-related impacts, we initiated a further search of the literature which elicited a recent study examining on a hypothetical basis, the impact which would occur if an offshore nuclear power plant were installed in proximity to a beach. While again, not directly comparable to our analyses, it was of interest as it represented an attempt to estimate perception-related impacts. A brief synopsis of this study follows:
(See Reference 13)

In 1976 and 1977, a team comprised of psychologists, a geographer and environmental specialist undertook to forecast the behavioural response of beach goers to the hypothetical introduction of a nearby offshore nuclear power plant. While this study cannot be considered directly comparable, i.e. while it does not address the impact of media attention or a location in the tourism profile equal to that of Niagara Falls, it does examine the following question which is relevant to our analyses:

> "Specifically, if a nuclear power plant were located off the coast near a beach community whose economy depended upon

> tourism, would the plant have a major impact on tourism and beach visitation?" (Reference No. 13, p. 368)

The primary purpose of the study was to assess the perceived risk by estimating the possible magnitude of beach avoidance as a result of a nearby nuclear facility. The questions asked of the beach goers in four different settings centred around the following "predictor variables":

- Concerns about safety;
- Knowledge about nuclear power;
- Attitudes towards energy alternatives;
- Confidence in information sources;
- Socio-economic and demographic data.

Based upon chi square and variance analyses of the responses, the researchers concluded that:

> "...at the closest point to shore, an offshore nuclear power plant would probably deter no more than 5% to 10% of the routine visitors." (p. 404)

The authors qualified their projections with three cautions:

- The respondents had not given the hypothetical situations adequate consideration prior to being asked the questions;

- Visual impact responses to an offshore reactor were difficult to assess as artists' renderings might not elicit the same response as an actual plant;

- The temporal stability of the estimates reported was unknown, i.e. "Intention-to-avoid beach was strongly related to none of the predictor variables tested, but increasing media attention to antinuclear activists and the uncertainty of the future safety record of nuclear power make projections into the future equally uncertain." (p. 407)

While the study provides a useful point of reference, it does not constitute a sufficient basis upon which to found an estimate of perception related impacts.

In summary, while it is our judgment that an impact upon tourism in Niagara Falls will be felt as a result of changes in vacation decision making by some part of the Falls' tourist market, the magnitude of such an impact is a function of several variables which are, themselves, difficult to predict with any confidence.

In order to provide some perspective regarding the level of economic impact which could result from a relatively small percentage decline in overall visitation, the following hypothetical scenario is presented below:

Impact on Levels of Tourist Visitation

- A decline over one year of 5% in visitation by part of Niagara Falls' primary market (defined here as Ontario and New York State) as a result of perception-related impacts would be equivalent to the loss of approximately 320,000 visitors, or 2.5% of annual visitation.*

- Based upon the per capita tourist expenditure of $20 (see Section III) in Niagara Falls, a total of $6.4 million (1984) of tourism expenditures would be lost in that year.

- Indirect and induced income losses, assuming a multiplier of .31** would total an additional $1.9 million.

- The estimated loss in direct tourism employment in Niagara Falls as a result of a reduction in tourism revenues of $6.4 million would be 185 person-years.

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* Calculation based on an assumed total annual visitation of 13 million people and upon the estimate that Ontario visitors comprise 38% of Niagara Falls' market, and New York State, some 11.6%.

** This income multiplier is discussed on Page 47 of this report.

- The loss of secondary employment would total an additional 150 person-years.

It is conceivable that that the actual impact upon visitation could be higher than 2.5%, depending upon the interaction of variables identified earlier in this section (e.g. the geographic scope of media attention). It could, as well, be lower. The 2.5% example represents the lower magnitude of impact estimated in the nuclear power plant study and is not intended as a prediction.

In the absence of detailed examination of a comparable situation to this Niagara Falls' case in the literature and in light of the difficulties associated with measuring perception-related effects, the use of the 2.5% example above was meant to reflect our judgment that an impact upon visitation to Niagara Falls could well result and that even a relatively low percentage drop could lead to the above-noted economic losses.

Impact on Lengths of Stay

As indicated in Section III of this report, only 21% of all summertime visitors to Niagara Falls are estimated to stay overnight in the City, some 67% to 70% of whom are American. While those people visiting the Falls on a daily basis tend to stay for relatively short periods of time (between two to four hours), the average overnight stay is 1.3 to 1.5 nights.

The low per person trip expenditure average of $16.42 for visitors to Niagara Falls as contrasted with $67.08 for per person trips in Ontario as a whole ($1981) underlines the challenge Niagara Falls operators are faced with, i.e. encouraging visitors to stay for longer periods of time and to spend more money.

It is our view, based upon our analysis of perception-related factors influencing vacation decision-making, that some part of those people who want to see the Falls but are sensitive to health and safety issues raised by the media may choose to stay shorter periods of time and to reduce or eliminate:

- Food and beverage purchases in the city; and/or,
- Overnight stays.

The extent to which decisions are made to stay for curtailed periods of time will logically be a function of:

- The clarity/ambiguity with which the media portrays the Falls as an unsafe or unhealthy environment;
- The intensity of negative media coverage;
- The sensitivity of individuals to health and safety issues.

As noted earlier in this analysis, negative media coverage addressing health and safety issues is likely to occur. Because the intensity of media coverage and personal sensitivity cannot be predicted given the present state of knowledge, the economic magnitude of the impact on length of stay is difficult to predict accurately.

However, if, over one year, 5% of the New York State and Ontario markets were, for example, to spend \$8 less than the \$20 per person trip average as a result of a curtailed length of stay, a reduction in tourism expenditures of approximately \$2.5 million would result. The secondary income effect would represent a loss of approximately \$775,000.*

The corresponding loss of direct and secondary employment would total an estimated 70 and 60 person-years, respectively.

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* The two markets together comprise an estimated 49% of all visitors to Niagara Falls. Assuming an annual visitation level of 13 million people, the loss on direct expenditures would be calculated as follows: (.49 x 13 million)(.05 x \$8) = loss in tourism expenditures. To calculate the secondary income effect, the income multiplier of .31 would be applied to the above equation, i.e. .31 x the loss in tourism expenditures.

It should be noted that, again, there is no empirical evidence to support the above assumptions. While it is our view that some people will stay for shorter periods and spend less money, the $8 could be over- or underestimated. Similarly, the assumption that media coverage will extend to Ontario and New York State only is very likely a conservative one.

This hypothetical scenario is intended only to indicate the level of economic impact which could occur under assumed circumstances which are not beyond the realm of possibility.

Impact upon Group Tour Business

While the importance of group tour business to Niagara Falls has not, to our knowledge been precisely quantified, comments from several tourism operators and the number of chartered bus permits issued by the Niagara Parks Commission* suggest that this market segment is an important and growing one.

During our interview of public and private sector representatives of Niagara Falls, the concern was raised that tour operators would respond to a perceived change in customers' images of the Falls by reducing tour group time spent in the City or by avoiding the area entirely.

In order for such a reaction to occur, the impact of adverse media attention upon potential group tour travelers would have to be perceived by operators as being sufficiently severe to warrant a change in tour itineraries.

We have been given copies of letters submitted to Dworkin Communications Inc. from tour operators in Rhode Island, Quebec and New York State indicating their concerns regarding the impact of the presence of the OWMC facility in the Falls upon their market. These, in and of themselves, do not provide any solid basis for projecting a loss in tour group business.

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* See Tourism in the Niagara Region: Marketing, Trends and Tourism, Report No. 2, p. 56, Regional Municipality of Niagara (December 1983)

At this time, the impact, if any, on group tour business of the OWMC site selection process cannot be predicted. Empirical research would be required to establish the existence and nature of a causal link between tour operators' perceptions of their clients' response to negative media attention regarding tour destination and a decision to adjust their itineraries accordingly.

Impact on the Local Investment Climate and Future Development Potential

It would appear, based on the statements received from tourism operators in Niagara Falls, that the creation of uncertainty around the impact of the OWMC facility upon future tourist visitation levels in Niagara Falls could lead some tourism operators/developers to delay, cancel or redirect their investments, and may have a limited impact on tourism development potential.

Two prominent operators, one of a hotel, the other of an attraction, have indicated that they are delaying planned expansions until the Niagara Falls sites are eliminated as candidates for the OWMC facility. In the event that the facility is built in Niagara Falls, they will either delay construction for several years so that they can assess the facility's actual impact or cancel their plans entirely.

The capital value of these two expansions totals approximately $85 million.

Another major local operator of hotels and attractions indicated that, should Niagara Falls be selected for OWMC facilities, a planned expansion/upgrading of $3 million may either be cut back or cancelled entirely.

As noted in Section III, for every $1 million in construction investment, an estimated 30 person-years of employment are generated (some part of which will "leak" from the local economy as a result of the purchase of non-local supplies and services). The deferred $5 million hotel-related investment denotes the immediate loss of 150 person-years of construction-related employment as well as the loss of local indirect and induced income which would have been generated by construction employers/employees.

The deferral of an $80 million expansion of a major local tourist attraction would represent a loss (over a multi-year period) of 2,400 person-years of employment and associated secondary income. Finally, postponement of a $3 million investment would result in the loss of 90 construction jobs.

In addition to the loss in construction jobs and associated indirect and induced income effects which would result from these delays/ cancellations, the competitive position of Niagara Falls as a tourism destination could be weakened in the absence of growth and upgrading. Increasing competition throughout North America for the tourism dollar together with the numerous and varied vacation opportunities which are available to travelers has heightened the need for tourism destinations to continually improve their product and image. In a recently released Tourism Canada report, Tourism Tomorrow: Towards a Canadian Tourism Strategy, Niagara Falls is listed as one of two Category A tourist destinations on the decline ("product, infrastructure and services have deteriorated due to lack of maintenance or a failure to address changing market requirements. Major revitalization is required." - Page 17). This problem will be further aggravated by any adverse publicity emanating from the hearings.

While the total impact upon the investment climate associated with the uncertainty and doubt cast by the possible presence of the OWMC facility in Niagara Falls cannot be accurately quantified, it is possible that Niagara Falls' competitiveness vis-a-vis other destinations will be adversely affected in the long run if investment in the tourism sector subsides.

Duration of Perception-Related Impacts

The duration of the perception-related impacts will be a function of the interaction of several factors:

- The sensitivity of the potential visitor to the issues communicated by the media;
- The extent to which the issues covered are clear and unambiguous;
- The period of time over which the story is covered by the media.

It is our assessment that the initial and greatest impact upon visitation levels in Niagara Falls will occur over the year following the public hearings. Underlying this view is our assumption that the hearings will "heat up" over the second half of the year, as controversies arising from technical data submitted through the first six months of the hearings receive media attention.

Media attention during the latter months of the hearing, in this event, would adversely affect people considering the Falls as a vacation destination for the upcoming year.

Subsequent impacts would, in all probability, diminish considerably in the second year after the hearings unless post-hearing controversies developed (i.e. an appeal against a decision to locate the facility in Niagara Falls) to keep the story in the news. By the third year after the hearings, assuming that no incidents worthy of media attention were to arise, it is our view that Niagara Falls would almost entirely recover from the impact of the hearings.

The above scenario relating to the duration of perception-related impacts must however, be qualified, i.e. if a Niagara Falls site is selected for the OWMC facility, delays and/or cancellations of new construction may prevail until the uncertainty and risk surrounding the level of future tourist visitation and expenditures are satisfactorily dispelled.

Summary

The tourism industry of Niagara Falls could very possibly incur economic losses associated with changes in the perceptions held by visitors and investors regarding the City's image as a tourism destination. The magnitude of such losses, while difficult to predict, could be considerable.

Impacts Upon Individual Tourism Operations in Niagara Falls Associated with PI-27E

In addition to impacts upon the Falls' tourism industry as a whole associated with a change in the perceived character of Niagara Falls as a tourism destination, some individual tourism-related businesses may be specifically affected by the OWMC facility by virtue of their physical proximity, visual access or location along an OWMC access route to PI-27E.

It has been indicated to us* that nuisance impacts are likely to be contained within a two-kilometre zone around the sites and that such nuisance factors "are not limited to, but should include...visual, lighting, odour and emissions (including gaseous, particulates and dust, liquids)". It has been indicated further, that all toxic or hazardous influences associated with any of the above nuisance factors will be dissipated to an acceptable level (meeting provincial standards and regulations) within the buffer zone.

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* Based on discussions with representatives of Monenco Limited and the Ontario Research Foundation, as well as correspondence from the OWMC to IER, January 2, 1985.

As noted in Section II of this Report, the operations we originally identified as possibly being affected by the OWMC facility on PI-27E were:

- Niagara Meadows Holiday Park;
- The Montrose Hotel;
- Grassy Brook Park;
- Minolta and Skylon Towers.

Representatives of all but one of these businesses (i.e. The Montrose Hotel) were interviewed to ascertain the importance of tourists to their operations and their concerns regarding the OWMC facility. The Montrose is primarily a beverage house which provides guest rooms only in accordance with LLBO requirements.

The following analysis of tourism-related environmental effects associated with these businesses is based upon our site-and-area inspection, our interviews and upon information provided to us by the OWMC.

Niagara Meadows Holiday Park

Open year-round, this campground is almost, if not entirely dependent for its livelihood upon a tourist clientele. According to the owners, the 291 site campground experiences high occupancy rates during July and August, the average length of stay being a few days. Some visitors, however, stay for a month or for the whole summer.

Located within 2 kilometres of PI-27E the campground would be susceptible to the nuisance factors noted above. In addition, in the absence of mitigation measures, Park users would in all likelihood, be able to see the incinerator stack and/or the treatment plant from some parts of the campground.

Nuisance factors such as traffic and dust could also be felt during construction of the treatment plant and incinerator.

The most logical access to the campground is gained from the Q.E.W., using the Biggar Road/Lyon's Creek Road exit and a service road on the east side of the Highway. The possibility that tourists travelling in either direction along the Q.E.W. to reach the campground could experience nuisance factors associated with OWMC truck traffic on the Q.E.W. and/or at the above-noted exit, was examined and found to be unlikely.*

Assessment of the impact of the OWMC facility at PI-27E upon campground visitor levels also involves the difficult and unpredictable realm of human behaviour and psychology. In this regard, it is our professional judgment that the park could experience some reduction in occupancy rates as a result of the construction and operation of the OWMC facility. This judgment is based upon our assumptions that:

- Some portion of the campground's potential clientele will be aware of the facilities' presence by virtue of the media attention noted earlier in this Section, and may be apprehensive to stay near the site;

- The combined nuisance effects of light, odour and dust could prompt some visitors to shorten their lengths-of-stay at the Park;

- Some part of the repeat and long-term visitor clientele could well decide to select other locations because of the nuisance factors and/or feelings of discomfort associated with their proximity to the OWMC facility.

The magnitude of effect is impossible to project, as the owners would not provide specific data on occupancy rates and gross revenues. However, it is logical to assume that the size of impact would vary directly with:

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* According to M.M. Dillon, the consultants responsible for examining traffic/transportation-related impacts, the increase in truck traffic on the Q.E.W. associated with the OWMC facility would be very low in the context of overall truck traffic travelling along the Q.E.W. in the Niagara Falls area.

- The awareness of camp visitors of the OWMC facility's close proximity to their campsite;
- The proportion of current repeat clientele staying for periods of longer than a day or two;
- The severity of the combined nuisance effects;
- The extent to which the facility is visible from the campground;
- The period of time over which the OWMC facility receives media attention (local and non-local).

In summary, there are sufficient "nuisance" and behavioural factors to suggest that a reduction in the level of campground visitation could reasonably be expected to occur by virtue of the Park's proximity to PI-27E. The absence of detailed information about the Park's operations and the combined effect of nuisance factors preclude prediction of the magnitude and duration of such an impact.

Grassy Brook Park and The Montrose Hotel*

From a tourism perspective, no impact should be felt as a result of their proximity to PI-27E.

Skylon and Minolta Towers

The proposed OWMC facilities would be visible from both towers. In our judgment, no direct economic impact will be experienced by these tourist attractions as a result of visual exposure to PI-27E as:

- The primary view from the towers is towards the Falls themselves rather than west to the industrial and residential areas;

* Representatives of this facility were not interviewed. In our professional judgment, the hotel would not cater to tourists.

- The addition of a plant and incinerator stack would not be incompatible with land uses surrounding PI-27E.

Our assessment that no impact should be felt by the tower attractions assumes that there will be no unsightly smoke fumes blowing from the incinerator stack towards the towers.*

Tourist Traffic Passing the Site

At least some part of a facility on PI-27E will be visible to tourists travelling along the Q.E.W., Regional Roads 47 and 98 and Grassy Brook Road.

It is our understanding that the plant and incinerator will be designed to resemble other types of industrial facilities. While it is difficult to prove, it is our judgment that the majority of visitors to Niagara Falls would not be aware that PI-27E was an OWMC facility.

Further, for those tourists who were aware that an OWMC facility was located in Niagara Falls and that the site they were viewing was the facility itself, it is unlikely that they would be deterred from pursuing their plans to visit the Falls as a result of visual exposure.

Future Development Potential

In 1979, land almost directly across the Q.E.W. from PI-27E was redesignated* in the City's Official Plan from Industrial to a Resort Commercial use. Backing onto the Welland River, the land was so designated "to provide an opportunity to broaden the scope of tourist facilities now available, by creating a new distinctive district combining attractions, recreational facilities, with accommodation in a low density mixture."**

* This statement is based upon our discussions with a representative of the Ontario Research Foundation regarding stack emissions.

** Amendment No. 72 to the Official Plan of the Niagara Falls Planning Area (Section 29).

While we could find no firm indication of tourism development plans for the property, if PI-27E is selected by the OWMC, its proximity to these lands could put the latter's future development potential for tourism purposes into question.

Impacts Upon Individual Tourism Operations in Niagara Falls Associated with LF-1E

No individual tourism operations were identified within the two-kilometre zone.

WEST LINCOLN: TOURISM-RELATED IMPACTS

Introduction

Consideration of the potential for tourism impacts associated with the introduction of OWMC facilities to sites LF-3C and LF-9C follows.

Impacts Upon the Township of West Lincoln's Image/Character and Economic Base

Again, the issue to be examined here is whether or not tourists will be deterred from visiting West Lincoln as a result of a change in their image of the Township as a vacation destination.

As noted in our discussion of Niagara Falls, for the image/character of a location as a tourism destination to change and lead to the deterrence of tourist visitation, the area in question must possess a tourism image or profile in the first place, i.e. by definition, people cannot experience a change in the image of a location unless they had an image of the area to start off with.

In order for an area to have an image as a tourism destination it must possess attributes (natural and/or man-made) which have tourist appeal and these attributes must be made known to potential visitors (normally achieved through various marketing methods).

From our analyses, it is clear that West Lincoln has virtually no image as a tourism destination. The Township offers a rural setting characterized by farm properties and small villages or towns whose services exist primarily to accommodate the local population and itinerant travellers passing through the area.

Because of West Lincoln's lack of profile as a tourist destination and because it is highly unlikely that the focus of media attention surrounding West Lincoln would be tourism-related, it is our judgment that the area would experience virtually no image/character-related impacts from a tourism perspective.

Our assessment does not ignore the fact that West Lincoln has exposure to tourists, i.e. some people travelling between Niagara Falls and Hamilton/ Metropolitan Toronto take a more scenic journey through rural Ontario, passing, for example, along Highway 20 which cuts through West Lincoln, rather than taking the Q.E.W. Based upon our analysis of the relationship of image, media attention and vacation decision-making, we can find no grounds for predicting that such tourists would associate the OWMC facility with their scenic drive and be deterred from passing through the area.

Impact Upon Individual Tourism Operators Within the Township of West Lincoln Associated with LF-3C

The only tourism-related facility potentially affected by the OWMC facilities is the Balls Falls Conservation Area which is located on Regional Road 24, a proposed north-south access route for OWMC trucks.

The Conservation Area as noted in Section II is largely a day use facility serving local and regional users. It does, however, offer overnight camping facilities. While Balls Falls is not within the two-kilometre impact zone and should not experience any odour, dust or lighting nuisance effects from the treatment facility, a concern was expressed that a traffic nuisance impact might occur, i.e. that entrants to the Conservation Area travelling south could be impeded from making left turns into the Park as a result of truck traffic heading in a northerly direction, leading to a traffic backup particularly during their peak summer season. Based upon discussions with M.M. Dillon, consultants examining the traffic/transportation impacts associated with the candidate sites, the increase in truck traffic attributable to the OWMC facility should not be sufficient to warrant the above-noted concern.

However, as there would be no visual exposure to the facility from the Conservation Area, it is our judgment that no adverse tourism-related economic impacts should result if LF-3C is selected as the OWMC site.

Impact Upon Individual Tourism Operations Within the Township of West Lincoln Associated with LF-9C

There is only one tourism-related operation, the Silverdale Sports Centre, which could be affected by the treatment facilities.

The centre, being within two kilometres of LF-9C, would be susceptible to the nuisance impacts of odour, light and dust. According to the owner, the centre should not be adversely affected by LF-9C as it is upwind, so that any impacts will be minimal. In addition, because it is a pistol club, there is considerable noise on the site to counteract any sound produced by the OWMC facility.

There is also a trailer park development proposed on a site on the north side of Highway 20 immediately east of LF-9C. While the concept has been approved, the likelihood of the park being developed in the immediate future is uncertain.

TOWN OF MILTON: TOURISM-RELATED IMPACTS

Introduction

The potential and/or actual presence of the OWMC facility on any one of the three Milton-based siting options (LF-4N, PI-1N, PI-13N) may have an impact upon the Town of Milton's tourism industry. The probability, nature and magnitude of potential impacts are examined below with regard to the two types of impacts described at the beginning of this section.

Impacts Upon the Town of Milton's Image/Character and Economic Base

As with the other three candidate areas, the hypothesis being examined here is whether or not the proposed and/or actual presence of the OWMC facility in Milton will affect the character/image held by potential visitors of the area and, if so, whether such an effect will deter tourists from visiting.

Because of the more "sketchy" nature of the tourism information available for Milton relative to Niagara Falls, assessment of potential character/image-related impacts must be somewhat more speculative in nature.

The first assumption underlying the hypothesis (as stated on page 87) addresses the nature of the issues arising at the public hearings in the event that a Milton site is selected for the OWMC facility.

Unlike Niagara Falls, Milton and Halton Region as a whole do not presently have strong images as tourism destinations. In the Phase 2 Report prepared by Peter Barnard Associates, the points are made that:

- The existing tourist market represents an undeveloped resource;
- North Halton municipalities (of which Milton is a part) are not tapping their tourism potential;

- There is a very low awareness of North Halton's existing attractions and very limited tourism revenues;
- Halton is not widely regarded as superior to other tourism areas;
- Existing tourist information sources are not proving to be effective, and there is virtually no awareness of advertising or tourism promotion. In fact, only 6% of visitation to Milton is generated by promotional efforts;
- Only 24% of Milton's visitors are "first-timers" (inferring that the majority of its tourist clientele is repeat business);
- Tourism is thought to represent between 15% and 20% of total customers;
- Over 75% of Milton's market comes from within one hour's driving distance, the majority of visits being for day-trip purposes.

These findings suggest that Milton's image as a tourism destination is not a strong one and that there has not been a concerted effort to promote tourism in the area.

In our discussions with Halton Region representatives, they noted that one of the aims of the tourism study prepared by Peter Barnard Associates* was to derive a tourism-related theme for the area. Concern was expressed that the image of an industrial waste management facility could be in direct conflict with the future image being marketed by Halton. They also forwarded fears that Milton could become known as Ontario's "dumping ground" and that if it took years to dispel such an image, Halton's ability to develop a competitive tourism industry would be lost. They also noted that the scenic views from Rattlesnake Point and Mount Nemo could be adversely affected by the presence of the OWMC facility.

* Peter Barnard Associates Tourism Master Plan: Halton Region, 1984/85, prepared on behalf of the Regional Municipality of Halton.

In the event that arguments are made that the OWMC facility would adversely affect the recreational experiences of visitors to the Niagara Escarpment, Rattlesnake Point and Mount Nemo, then some image/character-related effects could result if the subsequent assumptions to be tested are borne out.

Assumption 2 regarding treatment of the issues by the media has been discussed at some length in our analysis of Niagara Falls and is applicable to Milton's situation. If a Milton siting option is selected, it is our judgment that:

- Media representing at least Toronto and the other study communities will cover the hearings;
- The media will highlight and feature those issues which are controversial in nature.

In Milton's case, the third assumption, that the "mediasheds" reached during the hearings will extend to at least part of the destination's primary market will, without a doubt, be borne out. As Peter Barnard Associates' Phase 2 study shows, over 75% of Milton's market - its primary market - originates in Metropolitan Toronto, Peel, Hamilton-Wentworth and Halton itself. In essence, all of Milton's primary market will be exposed to media coverage of the OWMC public hearings and controversies.

Assumption 4, which reaches the heart of the matter, purports that adverse media attention will deter some proportion of those people considering Milton as a potential tourist destination from visiting the area or prompt them to spend shorter periods of time. It should be noted that our analysis of this assumption will only be operable if Assumption 1 regarding the raising of harmful issues, holds true. While such issues may be raised, there is no incontrovertable evidence, at this time, that they will be.

Assuming that issues to which potential visitors are sensitive (e.g. health, safety or scenic value issues) do arise, it is our judgment that an adverse character/image-related impact could affect Milton's tourism industry. Our assessment is based upon the following factors:

- Milton's entire primary market will be exposed to media attention given to the hearings;

- Milton's market is largely "repeat", inferring that a substantial part of the market knows and has been satisfied with what Milton has to offer;

- Some portion of these visitors are repeat visitors to the Niagara Escarpment, Rattlesnake Point and/or Mount Nemo and have an image of what these amenities have had to offer;

- The OWMC facility, if presented as incompatible or harmful to the vacation experience, could damage their perception of Milton;

- There is a significant level of competitive indifference, i.e. "the majority of Halton tourists regard the area as no better than Toronto, Kitchener, Niagara Falls and Collingwood/Muskoka" (Peter Barnard Associates, Phase 2 Report, p. 14). The market is susceptible to competition such that adverse publicity could sway an "indifferent" market to go elsewhere.

While it is again, difficult to determine the magnitude of any impact (Assumption 5), it is our professional assessment that the impact upon Milton's existing market would not represent a major loss to Milton's economy. The Barnard study indicates that:

- There is a high unawareness of Milton's tourism product and what it has to offer;

- Tourists are perceived as a minor segment of total customer mix;

- Tourists, especially in North Halton, are low spenders and seasonal in nature;

- Little effort has been given to establishing a tourist image within the primary market.

It would appear that the volume of tourist visitation to Milton is not large and that the area does not possess a strong tourist image. Moreover, because visitors do not spend large sums and because the tourist clientele of businesses are a "minor segment of total customer mix", the economic impact should not be significant. Unfortunately, as there are no figures available regarding total tourist visitation, it is impossible to speculate further on the actual number of the existing tourist market who might be deterred from visiting Milton as a result of a change in the perceived image of Milton.

The possibility that lengths of stay might be reduced is equally difficult to address. As with Niagara Falls, negative media attention could prompt some day-trippers (which make up 90% of Milton's market) to shorten their visits, and could perhaps discourage some potential overnight tourists from staying in Milton. Because of the difficulty of assessing the nature of media attention it will receive, prediction of an impact upon length of stay is very difficult.

In summary, if issues of a sensitive nature are raised at the hearings, it is our judgment that there could be a small reduction in the level of Milton's tourist visitation. However, because of the lack of information regarding Milton/Halton's historic levels of annual tourist visitation, the precise magnitude of any impact is virtually impossible to specify.

In light of Halton's obvious commitment to explore its future tourism potential* the question as to whether the OWMC hearings could affect its image as a suitable **future** vacation destination as held by people not

* The undertaking of the Peter Barnard Associates study to develop a tourism development plan is one indication of its desire to explore development of the industry.

presently visiting the area, is one which merits attention. The issue is a particularly sensitive one, as Milton's primary market (Toronto, Peel, Hamilton Wentworth) will undoubtedly be exposed to public hearings-related stories. If one of the Milton siting options is selected and if media is derogatory, it is possible that people currently having little or no image of Milton as a tourist destination, may acquire an image of the Town as being undesirable. Such an occurrence could harm if not cripple attempts by Milton to exploit its tourism potential.

Moreover, based upon the tourism-related studies prepared by Peter Barnard Associates and upon our knowledge of Milton's tourism resources, we feel confident in stating that the area does have a very real and immediate opportunity to increase its day-trip visitation through increased image-building marketing, through the packaging of its existing amenities and/or the addition of complementary tourism attractions. In our view, local operators and investors could well be deterred from pursuing such opportunities in the event that media attention within the primary market is perceived as harming the Milton area's tourism-related attractiveness and competitiveness.

Again, because information regarding current levels of visitation and the scope of future tourism development potential is unavailable, the possible magnitude of any impacts upon the future investment climate cannot be predicted.

Impacts Upon Individual Tourism Operations Within the Town of Milton Associated with PI-1N

Within the two kilometre zone where odour, dust and light-related impacts may be felt,* no facility was identified as potentially having a tourism-related clientele.

Although not within two kilometres of or along access routes to the site, Rattlesnake Point, Mount Nemo and a number of other areas along the

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* Monenco Limited, 1985, Site Selection Process, Phase 4A: Selection of a Preferred Site(s) - Engineering.

Niagara Escarpment will have visual exposure to PI-1N. The site is, however, sufficiently distant from these viewing areas as to be in the "rural middleground".* Because other industrial facilities along Lake Ontario can be seen in the background from the above-noted areas, there is little evidence to suggest that the presence of the proposed OWMC facility would significantly alter the aesthetic enjoyment of hikers.

Impacts Upon Individual Tourism Operations in the Town of Milton Associated with LF-4N

The only potential tourist-related operation identified within a two kilometre radius of LF-4N was the Mountainview Restaurant. A small-scale coffee shop, it serves truckers, local people and the occasional visitor to Rattlesnake Point. Because its clientele is largely non-tourist, we find no evidence to suggest that the restaurant's proximity to LF-4N will adversely affect its business.

No facilities along its access routes were found to cater to tourists.

Of the three candidate sites in Milton, LF-4N would be most visible from Rattlesnake Point, Mount Nemo and other vistas along the Niagara Escarpment, as it is located in the "middleground" and is the closest of the three Milton sites to these vistas. Because the facility at LF-4N would be considerably more evident from these vistas, and would be in a predominantly rural setting, the aesthetic enjoyment of users of these vistas could be affected.

Impacts Upon Individual Operations in the Town of Milton Associated with PI-13N

No facility was found that caters to tourists.

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* See the discussion of special visual exposure in E.D.A. Collaborative Inc., Site Selection Process, Phase 4A, Selection of (a) Preferred Site(s), Visual Impact Assessment, 1985.

In addition, none of the facilities along the access routes were found to have a tourist component.

Of the three candidate sites in Milton, OWMC facilities in PI-13N would have the smallest visual impact upon users of Rattlesnake Point, Mount Nemo and the Niagara Escarpment vistas. Thus, the aesthetic enjoyment of users should not be significantly affected.

SUMMARY

The above analysis of community image and individual site-specific impacts forms the basis for the determination in Section VI of the preferred siting option for the OWMC facility from a tourism perspective.

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Dworkin, Larry, President, Dworkin Communications (29/01/85)

Garcia, John, Bermuda Government Office of Tourism, Toronto (13/02/85)

Goeldner, Dr. Charles, Associate Dean, Business Research Division, University of Colorado, Editor of Journal of Travel Research (12/02/85)

Gunn, Dr. Clare, Professor of Tourism, Texas A & M University (14/02/85)

Hall, Jerry, Editor of Toronto Sunday Star and Former Travel Editor, Toronto Star (01/02/85)

Hoynes, Michael, Foot Cone Belding, New York Office (6th largest advertising firm in the world) (13/02/85)

Hunt, Dr. John D., Director of the Travel and Tourism Program, George Washington University (12/02/85)

Mayo, Dr. Edward, Professor of Marketing, West Michigan University (19/02/85)

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SECTION VI

DETAILED COMPARATIVE EVALUATION OF SITING OPTIONS

INTRODUCTION

In Section V, potential tourism-related impacts associated with the presence of the OWMC facility in each community and on each site were identified and discussed.

The purpose of this section is to rank the candidate siting options on a "preferred" to "least" preferred scale, using as a basis the community-wide and site-specific tourism impacts identified in the preceding Section.

METHODOLOGY

To accommodate the often qualitative nature of impacts discussed in Section V, the following method for rating the siting options has been adopted:

1. For each broad type of potential impact discussed in Section V, i.e. community-wide and individual tourism operation-related, all of the specific impacts have been summarized. (While these specific impacts will henceforth be referred to as "**indicators**", the broad impact categories will be termed "**factors**".)

2. Indicators pertaining to each factor have been analyzed as to their relative importance from a tourism perspective.

3. Every site has been ranked with respect to each indicator as either being:

    - The **preferred** site (P); or

    - The **least preferred** site (LP); or

- **Not significantly different** (NSD) from the preferred site in terms of level of impact;
- **Significantly different** (SD) from the preferred site in terms of level of impact.

It should be noted that as assignment of these rankings involves subjective judgments, the rationale behind such rankings has been provided.

4. Using a summary table of site-by-site rankings for all indicators within each factor, an overall ranking of sites on the "preferred" to "least" preferred scale for each factor has been determined.
5. Factors have been analyzed as to their relative importance from a tourism perspective.
6. Siting options have been ranked i.e. once having determined overall rankings for each site, the fully integrated and partially integrated site options have been ranked for each factor.
7. A final ranking of each site on a "preferred" to "least" preferred scale has been performed by examining site-by-site factor rankings with respect to each factor's relative importance.
8. Implications of selecting siting options other than that determined to be "preferred" from a tourism perspective have been discussed, i.e. trade offs and where possible, potential actions which might be taken to mitigate anticipated impacts have been identified.

The findings associated with each of the steps described above are presented on the following pages of this section.

SITES AND SITING OPTION RANKINGS

Step 1 - Summary of All Impacts by Indicator and Factor

Tables 31 and 32 summarize, by site, all of the impacts discussed in Section V.

TABLE 31

FACTOR: CHARACTER/IMAGE-RELATED IMPACTS UPON COMMUNITY ECONOMIC BASES

Indicators of Impacts	Niagara Falls Sites PI-27E and LF-1E	Milton Sites LF-4M, PI-1M and PI-13M	West Lincoln Sites LF-3C and LF-9C
1. Decline in tourist visitation and attendant impacts upon community revenues and employment	o A decline of 320,000 visitors in year following public hearings would occasion a loss of: - $6.4 million in tourist expenditures - $1.9 million in secondary income - loss of 185 and 160 person-years of direct and secondary employment, respectively.	o Some decline in visitation is possible, but impossible to quantify or to predict with any certainty.	o No evidence to suggest any decline in visitation levels.
2. Impact upon tourism-related development plans	o At least two tourism operators indicate they are delaying and/or cancelling expansion plans until uncertainty created by OWMC-situation is resolved.	o No evidence to suggest an impact.	o No evidence to suggest an impact.
3. Length of stay	o It is possible that some tourists may choose to spend shorter time periods and therefore, spend less dollars in Niagara Falls.	o If media attention is negative, some visitors to the Milton area may choose to spend reduced time and money within the area.	o No evidence to suggest an impact.
4. Future development potential	o Delay/cancellation of expansion/upgrading plans could lead to an erosion of Niagara Falls' competitive position vis-a-vis other tourism destinations. o Such delays/cancellations of existing tourist operators may discourage new investors from proceeding with plans in Niagara Falls. o Land designated for future tourism purposes in Official Plan may no longer be appropriate due to its proximity to OWMC facilities (i.e. to PI-27E).	o If media attention regarding Milton during the public hearings is derogatory, plans for developing Milton/Halton's image as a tourist destination (see Peter Barnard Associates Reports) may be jeopardized.	o No evidence of major future tourism development plans; it is possible that a proposed trailer park near LF-9C would be jeopardized from proceeding if LF-9C was selected. Likelihood of the trailer park proceeding at all with or without the OWMC facility is questionable.

TABLE 32

FACTOR: SITE-RELATED IMPACTS PERTAINING TO INDIVIDUAL TOURISM OPERATIONS

Candidate Sites	1. Reduction in Tourist Visitation/Occupancy Rates	2. Presence of Nuisance Impacts (odour, dust, lighting, traffic, visual)	3. Impacts Pertaining to Tourism-Related Special Views	4. Visual Exposure of Passing Tourist Traffic to Sites*
PI-27E	o Niagara Meadows Holiday Park could experience impact on occupancy levels.	o Niagara Meadows Holiday Park could be affected.	o Minolta and Skylon Tower visual exposure to the site should not occasion any significant adverse impact.	o Traffic passing along QEW would have visual access to PI-27E and Niagara Meadows Holiday Park.
LF-1E	o No evidence of an impact.	o No evidence of an impact.	o Minolta and Skylon Tower visual exposure to the site should not occasion any significant adverse impact.	o No evidence of any significant impact.
LF-3C	o No evidence of an impact.	o No evidence of an impact.	o No evidence of an impact.	o While the OWMC facility could be considered as incompatible with surrounding land uses, the impact should be minor.
LF-9C	o No evidence of an impact.	o No evidence of an impact.	o No evidence of an impact.	o While the OWMC facility could be considered as incompatible with surrounding land uses, the impact should be minor.
PI-1N	o No evidence of an impact.	o No evidence of an impact.	o Scenic views from Mount Nemo, Rattlesnake Point and vistas along Niagara Escarpment would be minimally altered by presence of the OWMC facility.	o While the OWMC facility could be considered as incompatible with surrounding land uses, the impact should be minor.
PI-13N	o No evidence of an impact.	o No evidence of an impact.	o Scenic views from Mount Nemo, Rattlesnake Point and vistas along Niagara Escarpment would not be significantly affected.	o While the OWMC facility could be considered as incompatible with surrounding land uses, the impact should be minor.
LF-4N	o No evidence of an impact.	o No evidence of an impact.	o Scenic views from Mount Nemo, Rattlesnake Point and vistas along the Niagara Escarpment would be affected.	o While the OWMC facility could be considered as incompatible with surrounding land uses, the impact should be minor.

Step 2 - Weighting of Indicators

From a tourism perspective, some indicators on each of Tables 31 and 32 may be demonstrated to be more important than others, and therefore deserving of more emphasis during the sites ranking process.

In our professional view, the ordering of indicators pertaining to community economic base-related impacts as shown in Table 31 should be as follows:

1. Decline in tourist visitation and attendant impacts upon community revenues and employment - Most Important.
2. Impact upon tourism-related development plans - Less Important Than (1) and More Important Than (3).
3. Length of stay - Less Important Than (2) and More Important Than (4).
4. Future development potential - Less Important Than (3).

Clearly, tourist visitation is the basis of tourism. It hardly need be said that without tourists there would be no tourism industry. Thus, a decline in visits and the associated loss of tourist expenditures, income and employment accruing to a community is considered here to be the most important indicator of impact.

The relative weighting of indicators (2) and (3) above is a difficult one. While the shortening of length of stay will normally result in a loss of tourist expenditures within a community, the cancellation of existing expansion/development plans could also have significant effects. The immediate impact would be a loss of local construction dollars and employment as well as secondary jobs and income. Another implication of the delay/cancellation of development plans could well be the erosion of a community's ability to maintain its market position vis-a-vis other competing centres which are improving their tourism products. While both indicators are important aspects of a tourism industry, it is our professional judgment that the delay/cancellation of tourism-related investment attributable to the OWMC facility would hold the potential for relatively more serious consequences and should be given more weight in our analyses.

While future development potential is also an important indicator, considerable uncertainty surrounds its measurement. For example, where future tourism potential is found to be present and possibly threatened by the OWMC facility, should we predict an impact despite the fact the community is demonstrating no intention or interest in developing such potential? Moreover, if interest is being demonstrated, how likely is it that such interest will translate into actual tourism development even in the absence of the OWMC facility?

Because future development can be affected by many factors apart from the OWMC facility and because the first three indicators would involve an actual loss to the community rather than the potential foregoing of an opportunity, the future potential variable is considered to be of least importance vis-a-vis the other three indicators.

For the second factor, the ordering of indicators of impacts should in our judgment be as follows:

1. Reduction in visitation/occupancy rates.

2. Presence of nuisance impacts (odour, dust, lighting, traffic, visual).

3. Impacts pertaining to tourism-related special views.

4. Visual exposure of passing tourist traffic to sites.

TABLE 33

SITES RANKING BY INDICATOR FOR CHARACTER/IMAGE-RELATED IMPACTS UPON COMMUNITY ECONOMIC BASES

	Niagara Falls		Milton			West Lincoln	
Indicators	PI-27E	LF-1E	LF-4N	PI-1N	PI-13N	LF-3C	LF-9C
1. Decline in tourist visitation, revenues and employment	LP	LP	SD	SD	SD	P	P
2. Impact on local investment plans	LP	LP	NSD	NSD	NSD	P	P
3. Impact on length of stay	LP	LP	SD	SD	SD	P	P
4. Impact on future development potential	SD	SD	LP	LP	LP	P	P
OVERALL SITES RANKINGS	**LP**	**LP**	**SD**	**SD**	**SD**	**P**	**P**

P - **Preferred** site(s)
NSD - **Not significantly different** from the preferred site(s)
SD - **Significantly different** from the preferred site(s)
LP - **Least preferred** site(s)

Again, any effect upon tourist visitation is considered to be fundamental and the most important indicator of impact.

The presence of nuisance factors such as odour, dust and traffic warrants the second highest emphasis. Tourism operations having to endure such conditions brought about by an OWMC facility on a permanent basis could well lose their competitive position and ability to draw tourists as a result of these nuisance impacts. OWMC has indicated that these factors will apply only within two kilometres of the site.

The third indicator of impact, the damaging of scenic views, is considered to be important in that it represents a permanent reduction in the aesthetic attributes of a tourism resource. While such an impact may not affect visitation levels, it does deprive the tourism industry of a previously important amenity.

The impact of visual exposure to the OWMC facility upon passing tourist traffic is a difficult one to measure. Because a visual sighting by passing traffic should be instantaneous and short in duration, and because the facility will, according to the OWMC, resemble a typical industrial building, the effect upon tourists should be all but negligible, and thus, not as important as the other indicators.

Step 3: Sites Ranking by Indicator

Tables 33 and 34 show our ranking of each site with respect to each indicator for the two "factors".

Sites Ranking for Indicators of Impacts Pertaining to the Community Economic Base

With respect to community economic base impacts, rankings for siting options within each community are identical, i.e. the same character/image type impacts would occur independent of the specific site within the community being selected.

TABLE 34

SITES RANKING BY INDICATOR FOR INDIVIDUAL TOURISM OPERATIONS-RELATED IMPACTS

	Niagara Falls		Milton			West Lincoln	
Indicators	PI-27E	LF-1E	LF-4N	PI-1N	PI-13N	LF-3C	LF-9C
1. Tourist visitation reduction	LP	P	P	P	P	P	P
2. Nuisance impacts	LP	P	P	P	P	P	P
3. Impacts on scenic views	NSD	NSD	LP	NSD	NSD	P	P
4. Impact on passing tourist traffic	LP	P	P	P	P	P	P
OVERALL SITES RANKINGS	**LP**	**P**	**SD**	**NSD**	**NSD**	**P**	**P**

P - **Preferred** site(s)
NSD - **Not significantly different** from the preferred site(s)
SD - **Significantly different** from the preferred site(s)
LP - **Least preferred** site

Clearly Niagara Falls is the "least preferred" community as far as the first and most important indicator is concerned. (See Section V for a discussion of these impacts and Table 31 for a summary presentation of all economic base-related effects.)

Selection of the "preferred" site for this indicator is not as clear cut, however. As Table 33 indicates, we have designated West Lincoln as being "preferred". West Lincoln is not predicted to experience any loss in tourist visitation.

Milton is viewed as being "significantly different" than the most preferred community, i.e. unlike West Lincoln, the Town does offer several tourist attractions and appears to have some profile (however limited) as a tourism recreation destination.

The second indicator pertaining to the delay and/or cancellation of existing investment plans, again places Niagara Falls into the "least preferred" category. In the absence of known tourism-related investment plans and their cancellation/delay for any of the communities other than Niagara Falls, there is little difference among them. However, because West Lincoln is in our view the least likely area to have tourism investment plans, we have again given it a "preferred" status.

For the **length of stay** indicator, Niagara Falls is again designated as "least preferred". Our discussions in Section V and the fact that this variable is one which has been and continues to be the subject of considerable concern to Niagara Falls tourist operators, form the basis for this designation.

Because there is no evidence that West Lincoln has a tourism image which could be damaged so as to affect length of stay, it is designated, again, as "preferred".

As discussed in Section V, adverse publicity in Milton's primary market area may cause some people to spend less time in the area. While the impact should not be large, it is our judgment that Milton is "significantly different" from the preferred community in terms of the length of stay indicator.

In evaluating siting options with respect to the fourth indicator of economic base-related effects, "impacts on future development potential", we have included in our deliberations consideration of the following:

- The extent of adverse media attention likely to occur in the community's tourist market;
- The extent to which the community has demonstrated an interest in/ intention to develop its tourism industry;
- The extent to which the community has reasonable tourism development potential;
- The relative impact which future tourism development would have upon the community economic base.

Determination of the "least preferred" community with respect to the future tourism development potential indicator comes down to consideration of Niagara Falls and Milton. While adverse media attention can be expected to occur in at least some part of Niagara Falls' primary market, it will reach Milton's entire primary market, potentially jeopardizing the Town's image as an existing or potential future tourist destination.

Such a change in image might not be considered as damaging if there were no intention to develop tourism. While Niagara Falls has an ongoing interest in maintaining/expanding its appeal through development, upgrading and marketing, Milton's future development potential is in the formative stages. The commissioning by the Region of Halton of the Peter Barnard Associates tourism development study is an expression of its serious interest in realizing its tourism-related potential. It has been pointed out in the Phase 2 Peter Barnard Associates Report* that the North Halton municipalities (of which Milton is a part) are not tapping their tourism potential. Thus, while ongoing tourism development is essential for Niagara Falls to maintain and/or expand its already existing tourism industry, the jeopardizing of Milton's image could impede local efforts to realize its potential as a future tourism centre, and to make an appreciable addition to its economic base. The above-noted factors form the basis for our assignment of "least preferred" to Milton.

There is no evidence to suggest that West Lincoln has any interest in developing or even examining its tourism potential. In our judgment, of the three communities, it has the least tourism potential and should be ranked as "preferred". Niagara Falls is clearly "significantly different" than West Lincoln in terms of potential impacts on future development potential.

Sites Ranking for Indicators of Impacts Pertaining To Individual Tourism Operations

Table 34 shows the rankings assigned to each site for the four indicators of individual tourism operation-related impacts.

Because PI-27E is the only site found to potentially prompt a loss of tourist visitation (Niagara Meadows Campground), it is clearly the "least preferred" site as far as the first indicator is concerned. All of the remaining sites are designated as "preferred" in light of the fact that there is no evidence to suggest the incidence of visitation-related impacts.

Nuisance impacts (odour, lighting, traffic, dust) are difficult to measure in terms of severity, i.e. while the OWMC has indicated that nuisance impacts will be present within a two kilometre zone and that there may be traffic problems along access routes related to trucks transporting the waste, knowledge regarding the frequency and the intensity of such effects upon individuals is not currently available.

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* See Peter Barnard Associates. Phase 2: Targetting the Tourist. (September, 1984) p. 2

Thus, in ranking the sites, a value judgment is required regarding whether certain types of nuisance impacts should be considered worse than others.

Site PI-27E is designated "least preferred" as far as nuisance effects are concerned in view of the potential impacts upon Niagara Meadows Campground. No other sites associated with nuisance impacts are predicted to affect visitation. The remaining sites are again designated as preferred in that impacts are not expected to significantly affect nearby tourist operations.

For the third indicator, dealing with the marring of scenic views from special viewing perspectives,* the two West Lincoln sites do not have scenic vistas and are designated as "preferred" sites. While the two Niagara Falls sites would be visible from the Minolta and Skylon Towers, they would not be distinctly incompatible with the surrounding landuses; moreover, the primary view from these towers is not in the direction of the OWMC sites. For these reasons PI-27E and LF-1E are rated "not significantly different" in terms of impact, from the West Lincoln sites. The presence of any one of the three Milton sites would alter the view of visitors to Rattlesnake Point Mount Nemo and other points along the Niagara Escarpment. Site PI-13N is in the "background" of the "cone of vision" of visitors located at the above-noted viewing points. Because these are industrial facilities along Lake Ontario in the "background" of the "cone of vision" from these viewing points, there is little evidence to suggest that the locating of the OWMC facility on PI-13N would materially alter the aesthetic experience of users of these vistas. It has been designated, therefore, as "not significantly different" from the preferred sites.

PI-1N is somewhat nearer to the vistas, although still in the "background" of the cone of vision. For the same reason as that noted above, it has been ranked as "not significantly different" from the "preferred" West Lincoln-based sites.

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* The discussion of this indicator here is based upon the Site Selection Process, Phase 4A: Selection of (a) Preferred Site(s) Visual Impact Assessment report prepared by E.D.A. Collaborative Inc., 1985. More specifically, it is based upon the part of the report dealing with "special visual exposure".

LF-4N is in the "middleground", i.e. much more visible from the scenic vistas. Because it is located in a predominantly rural setting and because of its greater visual impact, LF-4N has been assigned a "least preferred" ranking.

The fourth indicator pertaining to impacts upon tourist visitors travelling by the sites, as noted earlier, is not viewed as a particularly significant one. PI-27E is rated as least preferred by virtue of its visual access to the heavily travelled Q.E.W. and to tourists entering Niagara Falls. All other siting options (LF-1E, LF-3C, LF-9C, PI-1N, LF-4N, PI-13N) are "preferred", i.e. while the presence of the OWMC facility on any of these sites will not enhance the scenic quality of the areas, there is no evidence to suggest that it will have any significant impact upon tourist viewers.

Step 4: Overall Sites Ranking by Factor

As Tables 33 and 34 also show, overall rankings for each community and site have been determined based upon the indicator ratings for both the character/image and individual tourist operation factors.

Clearly, for the community economic base factor, Niagara Falls is the least preferred community (having been ranked as "least preferred" for the top three indicators). Review of Table 33 also reveals that the West Lincoln sites are "preferred".

The ranking of the three Milton sites is only slightly complicated by the varied rankings received for the four indicators. However, of the choice between assigning it a "significantly different" or "not significantly different" status, the former must prevail. In fact, Milton is ranked either significantly different or least preferred for all indicators but the second one.

Thus, for the character/image-related factor, overall community rankings are as follows:

LF-3C and LF-9C - West Lincoln - Preferred
LF-4N, PI-1N and PI-13N - Milton - Significantly Different
LF-1E and PI-27E - Niagara Falls - Least Preferred

With respect to the individual tourism operations factor, some overall site rankings are more clearcut than others (see Table 34). PI-27E, for example, is clearly "least preferred" while the West Lincoln sites are "preferred". The "not significantly different" rankings of PI-1N and PI-13N for the indicator pertaining to impacts upon scenic views sufficiently distinguish them from West Lincoln's sites to warrant their overall ranking as "not significantly different".

LF-1E is a more difficult site to rank. While its visibility from the Skylon and Minolta Towers distinguishes it from the "preferred" sites for the third indicator, on an overall basis, it is our view that the site should be ranked as "preferred" in the absence of any evidence to suggest its visibility would significantly affect the aesthetic experience of viewers from these towers.

Site LF-4N would most affect views from scenic perspectives in the area. Because recreation is one of Milton's primary attributes and because the quality of the recreational experience would be diminished by the presence of the OWMC facility on LF-4N, its overall ranking, in our judgment, should be "significantly different", not withstanding its ranking as "preferred" for three of the four indicators on Table 34.

Thus for the factor pertaining to impacts upon individual tourist operations, the overall site rankings are as follows:

- LF-3C - Preferred
- LF-9C - Preferred
- LF-1E - Preferred
- PI-13N - Not Significantly Different
- PI-1N - Not Significantly Different
- LF-4N - Significantly Different
- PI-27E - Least Preferred

Step 5: Weighting of the Factors

The process for determining the overall "most" and "least preferred" sites from a tourism perspective requires that the factors considered in our analyses be weighed as to their relative importance, just as has been done with indicators of impact under each factor.

Clearly, the two factors involve distinctly different levels of impact, one upon an entire community and the other upon specific tourism-related operations within a community which may be affected by physical exposure and/or proximity to a particular candidate site. Because the broader community impacts factor will affect tourism operations throughout the community and because these impacts are larger in magnitude, this factor is ranked higher than the other factor in the ranking of the siting options.

Step 6: Factor Rankings For Integrated/Partially Integrated Siting Options

As discussed earlier in this Report, while three of the candidate sites are "fully integrated", i.e. able to accommodate the physical/chemical treatment plant, incinerator and landfill components, other siting options are only "partially integrated", i.e. able to accommodate one or two of these necessary components. The OWMC has determined the following integrated and partially integrated site combinations to be the viable siting options.

- LF-3C - Fully Integrated
- LF-9C - Fully Integrated
- LF-1E - Fully Integrated

- LF-1E/PI-27E - Partially Integrated
- LF-4N/PI-1N - Partially Integrated
- LF-4N/PI-13N - Partially Integrated

Thus, the above options must be rated with respect to their potential tourism-related impacts upon the community economic base and individual tourism operations.

Table 35 shows our rankings for each factor and for each of the eight integrated/partially integrated siting options. It is followed by an explanation of the rationale underlying such rankings.

TABLE 35
RANKINGS OF CANDIDATE SITING OPTIONS BY FACTOR

	FACTORS			
	Community Economic Base		Individual Tourism Operations	
Siting Options/Factors	Combined Rankings*	New Overall Rankings	Combined Rankings*	New Overall Rankings
LF-3C	P	P	P	P
LF-9C	P	P	P	P
LF-1E	LP	SD	P	P
LF-1E/PI-27E	LP/LP	LP	P/LP	LP
LF-4N/PI-1N	SD/SD	SD	SD/NSD	SD
LF-4N/PI-13N	SD/SD	SD	SD/NSD	SD

* Overall ratings shown on Tables 33 and 34

Ranking of Options for the Community Economic Base-Related Factor

The integrated West Lincoln sites, LF-3C and LF-9C are both "preferred" as far as impacts upon the community economic base are concerned, i.e. there are simply no impacts which distinguish them from each other (see Table 33).

Clearly, the LF-1E/PI-27E combination is the least preferred of all options, combining two sites which have been ranked as "least preferred" (see Table 33). LF-1E, a fully integrated site, is little better than the "least preferred" option and must be considered "significantly different" from the most preferred options. The remainder of the options are ranked as "significantly different". Here, because the factor pertaining to community-wide impacts is viewed as meriting considerable attention and weight, one "significantly different" ranking per site combination is considered to justify the new overall ranking of "significantly different".

Ranking of Siting Options for the Factor Pertaining to Individual Tourism Operation-Related Impacts

The new overall ranking for siting options related to this factor are as follows. The "least preferred" ranking of the Niagara Falls sites (LF-1E/PI-27E) is justified by the potential severity of impacts associated with PI-27E (see summary on Table 32) which was considered to override the "preferred" ranking of LF-1E.

LF-3C, LF-9C and LF-1E are free of any impact associated with individual tourism operations and are therefore deserving of the "preferred" ranking. Both LF-4N/PI-1N and LF-4N/PI-13N have been designated as significantly different than the preferred options by virtue of the fact that LF-4N would be highly visible from scenic vistas. (Of the two options, LF-4N/ PI-1N would be lower in ranking since PI-1N is closer than PI-13N to these vistas.)

Rankings for each integrated/partially integrated siting option by factor can be summarized as follows:

	Community Economic Base	Individual Tourism Operation
LF-3C	P	P
LF-9C	P	P
LF-4N/PI-13N	SD	SD
LF-4N/PI-1N	SD	SD
LF-1E	SD	P
LF-1E/PI-27E	LP	LP

Step 7: Determination of the Overall "Most" and "Least Preferred" Siting Options From a Tourism Perspective

Having determined siting option rankings for each factor, the final step in the ranking process is to determine the overall rankings taking into consideration the relative importance of each factor (see Step 5).

Bearing in mind that the community economic base factor is considered to be the more significant of the two, the "preferred" siting options are LF-3C and LF-9C only and not LF-1E. There is little to distinguish the two West Lincoln sites from a tourism impact perspective. Site LF-9C may be slightly less preferable in that there is a proposal for a trailer park immediately east of the site.

While the "least preferred" option is the combination of Niagara Falls sites, i.e. LF-1E/PI-27E, the nature of the community economic base impacts associated with LF-1E are sufficiently severe to justify its overall "significantly different" ranking, despite the fact that it is "preferred" for the individual tourism operation factor.

The two remaining site options, i.e. LF-4N/PI-1N and LF-4N/PI-13N, are "significantly different" than the most preferred site, with the former being slightly less preferable than the latter by virtue of PI-1N's closer proximity to the scenic vistas.

Thus, the overall rankings assigned to site options with respect to their potential impact upon tourism are as follows:

Siting Option	Overall Ranking
LF-3C	Preferred
LF-9C	Preferred
LF-4N/PI-13N	Significantly Different
LF-4N/PI-1N	Significantly Different
LF-1E	Significantly Different
LF-1E/PI-27E	Least Preferred

Step 8: Tradeoffs Associated with Selection of Siting Options Other Than the "Preferred" and Possible Mitigative Measures

As noted above, there is only a minimal difference between LF-9C and LF-3C from a tourism-impact perspective.

Selection by the OWMC of any of the Milton siting options could carry with it adverse tourism-related implications. From a community economic base perspective, the image of Milton and its future development potential could be adversely affected by negative media attention in its primary market area. Increased promotion to counteract any negative publicity could be instituted as a mitigative measure. As far as the mitigation of Milton site-related nuisance impacts is concerned, selection of LF-4N in combination with either of the other Milton sites could reduce the aesthetic attributes of the views from special scenic heights, i.e. the presence of the OWMC facility could be visually incompatible with surrounding land uses irrespective of buffering efforts.

Selection of either of the options involving the Niagara Falls sites, from a tourism perspective, could hold potentially serious implications. As our analysis of potential Niagara Falls-based impacts indicates (see Section V) it is our judgment that a decline in the level of tourist visitation could well occur. In addition, the investment climate and future development potential of an important Canadian tourism resource could be adversely affected by the selection of either LF-1E and/or PI-27E for the OWMC facility.

SECTION VII
CONCLUSIONS AND RECOMMENDATIONS

REVIEW OF OUR APPROACH TO THE STUDY

Our analysis of the candidate siting options and their surrounding land uses, of the role which tourism plays within the candidate communities' economies and our interview of some fifty public and private sector representatives, uncovered the two major factors of tourism impact.

The first factor addressed the concern that the intended/actual presence of the OWMC facility might adversely affect tourists' perceived image of the study community in such a way that negative economic consequences would result, i.e. reductions in tourist visitation and expenditures, tourism-related employment, and/or the cancellation/impeding of future tourism development.

The second factor involved examination of impacts associated with tourism operations/tourists' proximity or exposure to the candidate sites. Because the first image-related factor would have the potential to affect an entire community, it was treated during our sites ranking process as deserving considerably greater weight than the more localized and limited effects associated with the second factor.

Because of the more often than not qualitative and subjective nature of tourism-related impacts we were dealing with, a relative and non-numerical scale was utilized for ranking the six siting options, i.e. once "preferred" and "least preferred" options had been identified, all other sites could be relatively evaluated as being either "not significantly different" or "significantly different" from the "preferred" option in terms of the magnitude and nature of their projected tourism-related impacts.

This process was followed on an impact-by-impact and factor-by-factor basis for each site and siting option in order to determine the preferred location(s) for the OWMC facility from a tourism perspective.

CONCLUSIONS

Our analyses have yielded the following overall ranking of the six candidate options for OWMC facilities:

Siting Option	Overall Ranking
LF-3C	Preferred
LF-9C	Preferred
LF-4N/PI-13N	Significantly Different
LF-4N/PI-1N	Significantly Different
LF-1E	Significantly Different
LF-1E/PI-27E	Least Preferred

While LF-3C is considered to be preferred, there is only a marginal difference between it and the other West Lincoln site, LF-9C. From a tourism perspective, either site would be an acceptable choice, with virtually negligible trade-offs being incurred if LF-9C were selected.

Because of the possibility of an adverse image/character-related impact upon Niagara Falls associated with the potential presence of the OWMC facility, both the LF-1E and LF-1E/PI-27E siting options would be the most affected choices from a tourism perspective. Because the latter option involves PI-27E which is least preferred as far as the individual tourism operation factor is concerned, the LF-1E/PI-27E option is least preferred.

The remaining options involve Milton/Milton site combinations. Because Milton's tourism visitation levels could be adversely affected and because its future tourism development potential could be hampered (see Section V), both options are rated as "significantly different" than the preferred site.

RECOMMENDATIONS

Following are the primary recommendations which are founded upon our analyses and upon our judgment as tourism professionals:

- Should any of the Niagara Falls or Milton-based siting options be selected, we recommend that the following types of studies be undertaken during the confirmation/mitigation stage of the selection process:
    - Empirical market research designed to quantify more precisely the actual tourism-related economic impact which could result based on changes in the perceptions held by the communities' primary and secondary tourist markets of their appeal as tourism destinations, under non-accident and accident assumptions;
    - Determination of the nature and cost of marketing and promotion which could be implemented to counteract tourism-related impacts associated with the presence of the OWMC facility.

APPENDIX A

SUMMARY OF INTERVIEWS

The following comments were received from those interviewed in Niagara Falls, West Lincoln and Milton. By noting these comments, we do not infer that the views expressed are/are not accurate or valid.

APPENDIX A

SUMMARY OF INTERVIEWS

NIAGARA FALLS

INTERVIEW TYPE	TYPE OF VIEW/CONCERN/IMPACT	MAGNITUDE/DEGREE OF IMPACT AS EXPRESSED BY INTERVIEWEE
I Public Sector		
1. Regional Representatives	1. Safety	
	o If and only if the waste treatment facility is safe, tourism will not be adversely affected. It may be enhanced as a result of the reduction of health hazards.	
	o The primary issues are water quality and the potential for leakages into the Niagara River.	
	o The facilities, while "state-of-the-art", cannot be perfect.	o There is always the potential for an accident to occur.
	2. Transportation	
	o The number of trucks carrying hazardous waste during the 100-day busy tourism season in the summer is of primary concern.	
	3. Perceptions	
	o Media coverage could damage tourism.	o Tourists will decide to avoid Niagara Falls, perceiving it to be akin to the Love Canal.
	o There is the possibility that even if the industrial waste management facilities are perfectly designed, tourists will confuse a dump site with a treatment facility.	

APPENDIX A

SUMMARY OF INTERVIEWS

NIAGARA FALLS

(Continued)

INTERVIEW TYPE	TYPE OF VIEW/CONCERN/IMPACT	MAGNITUDE/DEGREE OF IMPACT AS EXPRESSED BY INTERVIEWEE
1. Regional Representatives	o Niagara Falls' tourism industry is highly vulnerable to intermittent effects. It "has enough problems" without another one being added.	o The magnitude of any impact is impossible to assess at this time.
	o Media attention has already been adverse, linking the potential sites to the Love Canal.	
	o Because of the Love Canal, the public has already great concern regarding air and water purity in Niagara Falls, and whether or not the water is safe to drink.	
	4. Economic	
	o A reduction in Niagara Falls tourism would affect the Region's economy as a whole.	
	o Property values could be adversely affected.	
2. Niagara Falls, Ontario and New York Representatives	1. Safety	
	o If waste is "imported" from the U.S.A. for treatment at a Niagara Falls facility, transportation/traffic levels would be higher than presently projected, increasing the risk of accidents and health hazards.	
	o Preliminary investigation of the physical attributes of the proposed sites has indicated that they are not suitable for the OWMC facility.	

APPENDIX A

SUMMARY OF INTERVIEWS

NIAGARA FALLS

(Continued)

INTERVIEW TYPE	TYPE OF VIEW/CONCERN/IMPACT	MAGNITUDE/DEGREE OF IMPACT AS EXPRESSED BY INTERVIEWEE
2. Niagara Falls, Ontario and New York Representatives	o The prevailing winds in Niagara Falls are southwesterly and could cause pollutants to be carried across the major tourism area of the city.	
	o Many streams cross the Q.E.W.	o Any leakage/accidents could result in severe impacts upon water quality.
	o The "state-of-the-art" assumption regarding the OWMC facility is "frightening". Nothing is fail-safe. One needs to allow for the chance of accidents.	
	o If people see, hear or smell these facilities, tourism will be affected in the long term.	o "There will be more of an impact down the road than we can guess at this time."
	o Whatever the traffic projections are today with respect to the transportation of toxic waste, waste may be imported from the United States making traffic even heavier than currently indicated by the OWMC. The imported waste would be transported via trucks and/or trains. If the ConRail line, which passes through the heart of the tourism area were used, the potential for a catastrophic accident would be increased.	o An accident associated with waste would have a devastating effect. o Efforts to install a Light Rapid Transit System in the tourism area could be endangered if such rail lines are used for OWMC rather than LRT purposes.
	o The Ministry of Transportation and Communications has specified that the Q.E.W. in the Niagara Falls area is sub-standard because of the huge volume of traffic, particularly in the high (summer) season.	o Increased truck traffic would not only exacerbate congestion problems, but would increase accident potential.

APPENDIX A

SUMMARY OF INTERVIEWS

NIAGARA FALLS

(Continued)

INTERVIEW TYPE	TYPE OF VIEW/CONCERN/IMPACT	MAGNITUDE/DEGREE OF IMPACT AS EXPRESSED BY INTERVIEWEE
2. Niagara Falls, Ontario and New York Representatives	o There is considerable traffic coming from Toronto to Fort Erie and Buffalo.	o The possibility of serious accidents would increase with the introduction of carriers of hazardous waste to the Q.E.W. in the Niagara Falls area.
	o Visitors to Niagara Falls are often not familiar with the roads and have their attention on scenery and/or signage/directions.	o The propensity for accidents involving hazardous waste would increase.
	2. Perceptions	
	o Tourism decreased during the Love Canal incident.	o The "state of the art" facility could be worth $2 million of adverse publicity and would deter some tourists from selecting Niagara Falls as a vacation destination.
	o Widespread negative media attention will be directed to the introduction of the OWMC facility to Niagara Falls. The public will automatically associate the Love Canal with a toxic waste facility, particularly because the media will use such phrases as "garbage dump" to characterize the OWMC operation.	
	o An OWMC facility in Niagara Falls would be a stigma capable of deterring visitors from visiting. "We're the world's most famous address and now we'll be known as a toxic waste centre."	
	o Tour bus operators and travel agents' perceptions could be detrimentally affected by media coverage. If this occurs, the impact upon tourism visitation would be magnified beyond single households' decisions to come to Niagara Falls, i.e.	o Tour bus operators might decide either to bypass Niagara Falls or only stay for short day trips, overnighting in other locations.

APPENDIX A
SUMMARY OF INTERVIEWS
NIAGARA FALLS
(Continued)

INTERVIEW TYPE	TYPE OF VIEW/CONCERN/IMPACT	MAGNITUDE/DEGREE OF IMPACT AS EXPRESSED BY INTERVIEWEE
2. Niagara Falls, Ontario and New York Representatives	o If tourists' perceptions are influenced in a negative way as a result of an OWMC facility's presence in Niagara Falls, the ability of the City to attract conventions and tournament business will be damaged, particularly as there is a highly competitive market for this type of tourism.	
	o Air pollution from the incinerator will adversely affect the perception presently held by tourists that Niagara Falls Canada is a clean, safe environment.	o Through word-of-mouth and bad media coverage, potential visitors might select other destinations instead of Niagara Falls, particularly as there is increasing competition throughout North America for the tourism market.
	o An accident associated with hazardous waste would receive widespread media attention and would deter tourists from including a visit to the Falls in their vacation plans.	o A hazardous waste-related accident would be "sheer disaster" for the tourism industry.
	o If either of the Niagara Falls sites is selected, there will be hearings lasting 12 to 20 months, bringing constant, negative media exposure.	o Such exposure could have a detrimental effect on tourism visitation, as it would charactize Niagara Falls as a dump site.
	o It has been an ongoing goal of the City and the tourism industry to develop Niagara Falls' image as a destination rather than a "pass-through" stop.	o The association of the OWMC facility with Niagara Falls would damage these efforts, discourage tourists from staying for longer periods of time and from spending more money.
	o Tourists to this day still ask whether Niagara Falls' water is safe to drink as a result of the Love Canal incident which received publicity five years ago.	o An OWMC facility in Niagara Falls might be perceived by tourists, however incorrectly, as being akin to the Love Canal, and undesirable as a vacation destination. Tourists would be deterred from visiting the Falls.

APPENDIX A

SUMMARY OF INTERVIEWS

NIAGARA FALLS

(Continued)

INTERVIEW TYPE	TYPE OF VIEW/CONCERN/IMPACT	MAGNITUDE/DEGREE OF IMPACT AS EXPRESSED BY INTERVIEWEE
2. Niagara Falls, Ontario and New York Representatives	o While it is difficult to identify the impact which the Love Canal incidents had upon tourism in Niagara Falls, New York, its image undoubtedly suffered for three or four years as a result of national media attention. "Image is 50% of the battle" in drawing tourists. Perceptions influence the vacation destinations selected by tourists.	o Announcement of the OWMC facility in Niagara Falls, Canada will have a negative effect on tourism as it will be covered by the media as another dump site in the Niagara Falls area.
	o When the real story about the dump sites in Niagara Falls, New York comes out, it will make the Love Canal look like "a pimple on a dinosaur". The area is likely to receive widespread media attention. This will further reinforce the negative image which exists. So far, the Canadian side of the Falls has been viewed by Americans as clean and safe. The OWMC facility will harm the image.	o Tourists will view Niagara Falls as an undesirable, unhealthy place to spend some part of their vacation and/or decide to minimize their time by seeing the Falls and leaving the area immediately. Tourism expenditures in Niagara Falls would decrease.
	o In the event of an accident which affects local residents, the latter will press for compensation, using the media as a vehicle to gain attention and support. Such a process will prolong negative publicity.	o Tourism visitation would decline, particularly if negative media coverage is prolonged.
	4. Economic	
	o It is difficult enough now to market Niagara Falls as a tourism destination without adding new problems.	o Niagara Falls would be less competitive vis-a-vis other vacation destinations and would experience a decline in visitation.
	o Travel trade wholesalers (e.g. bus tour operators and travel agents) will be concerned if the OWMC facility is located in Niagara Falls.	

APPENDIX A

SUMMARY OF INTERVIEWS

NIAGARA FALLS

(Continued)

INTERVIEW TYPE	TYPE OF VIEW/CONCERN/IMPACT	MAGNITUDE/DEGREE OF IMPACT AS EXPRESSED BY INTERVIEWEE
2. Niagara Falls, Ontario and New York Representatives	o The tourism industry is extremely important to the city, providing full and part-time jobs, tax revenues and direct, indirect and induced benefits for other sectors of the local economy. Anything which has the potential to threaten the industry's well-being and growth is unacceptable.	o If one accident occurs, it could have a devastating effect on tourism.
	o Some 800 to 1,000 acres of land in the Grassy Brook/Lion's Creek area (near the candidate sites) were designated for tourism purposes on the City's Official Plan prior to the announcement by the OWMC that Niagara Falls was being considered for the OWMC facility.	o An OWMC facility in Niagara Falls would jeopardize this plan for future tourism development.
	o A decline in visitation to Niagara Falls by non-Ontario and non-Canadian visitors resulting from the locating of the OWMC facility in the Falls area would harm tourism not only in the City and Region but in Canada as a whole.	o The impact upon visitation could be great but is not measurable.
3. Associations, Commissions and Committees	1. Safety	
	o Health concerns should be first, economic concerns second. Niagara Falls already has dirty industries. It has not affected tourism so far. However, the importing of waste from the U.S. is a long-term concern.	o There will be no real impact on tourism.
	o There needs to be a transportation risk analyses performed.	o An accident would adversely affect levels of tourism visitation to the Falls.
	o The facility has to go somewhere and is probably safe.	

APPENDIX A

SUMMARY OF INTERVIEWS

NIAGARA FALLS

(Continued)

INTERVIEW TYPE	TYPE OF VIEW/CONCERN/IMPACT	MAGNITUDE/DEGREE OF IMPACT AS EXPRESSED BY INTERVIEWEE
3. Associations, Commissions and Committees	o Potential for transportation accidents makes the locating of the OWMC facility south of Lake Ontario "ridiculous".	o One accident in Niagara Falls could "blow the season" and would result in the City being associated with the Love Canal and as a "garbage dump".
	o Traffic congestion is already a problem. With trucks carrying hazardous waste to the site, there would be greater potential for an accident to occur.	o An accident in the Falls could lead to permanent damage of the tourism industry.
	2. Perceptions	
	o Bad publicity would definitely be a problem. Competitors in Niagara Falls, New York would use the negative publicity to encourage American tourists to stay on the U.S. side of the border.	o Visitation from the U.S.A. could decline.
	o Education is required to ensure that the public understands the need for the OWMC facility and the ability of the OWMC to manage the facility adequately.	o Bad publicity which might result could have a negative impact as a result of a lack of understanding regarding the nature of the OWMC facility.
	o Probably people visiting Niagara Falls won't even know of the OWMC facility's existence.	o The impact on tourism would only be significant if the minority stirs up concern.
	o Niagara Falls is a high profile location for such facilities. Consequently, the media would cover the story.	o There are difficulties with public perceptions as adverse publicity on the highly competitive market for tourists could result in decisions not to visit or not to spend time and money in Niagara Falls.

APPENDIX A

SUMMARY OF INTERVIEWS

NIAGARA FALLS

(Continued)

INTERVIEW TYPE	TYPE OF VIEW/CONCERN/IMPACT	MAGNITUDE/DEGREE OF IMPACT AS EXPRESSED BY INTERVIEWEE
3. Associations, Commissions and Committees	3. Economic	
	o Tourism operators need to make the money over a very short high season (45 days).	o Even two days of bad publicity can result in the loss of thousands of dollars.
	o Developers may delay or halt plans for expansion and/or new development as a result of the uncertainty regarding tourism created by the introduction of the OWMC facility.	o The delay/cancellation of expansion plans would result in a loss of construction jobs and the associated multiplier effects of construction revenues, as well as the Falls' competitiveness by curtailing growth and upgrading.
	4. Environmental	
	o Within the area of the two candidate sites there are woodlots which provide valuable information to the Breeding Bird Atlas. These woodlots and the Niagara River draw bird watchers in increasing numbers each year.	o It is difficult to say whether this growing tourism market segment would be deterred/affected by the OWMC facility.
II. Private Sector		
Tourism attractions, hotels/motels, and other related services	1. Safety	
	o Odours could affect the quality of the environment for tourists.	o If Niagara Falls becomes known for an unclean/unsafe environment, tourists may spend shorter time in the Falls or avoid the area entirely.
	o The OWMC cannot guarantee that no accident will occur.	o If an accident occurs, tourists "will avoid Niagara Falls like the plague".

APPENDIX A

SUMMARY OF INTERVIEWS

NIAGARA FALLS

(Continued)

INTERVIEW TYPE	TYPE OF VIEW/CONCERN/IMPACT	MAGNITUDE/DEGREE OF IMPACT AS EXPRESSED BY INTERVIEWEE
Tourism attractions, hotels/motels, and other related services	2. Perceptions	
	o Niagara Falls is experiencing stiff competition from other tourism destinations in North America. Any negative media attention could hurt the city's reputation and cause it to be linked to the Love Canal. Since the Love Canal, tour bus wholesalers have continued to ask about water quality and environmental safety in Niagara Falls, Canada.	o There would be a decrease in tourism visitation of 10% as a result of bad press.
	o The tourism market for Niagara Falls is, in large measure, families. This market segment is particularly concerned with health and safety. Adverse media coverage could influence this market to stay away from Niagara Falls.	o With adverse media coverage, announcement of the site will lead to a decline in business and a reduction of perhaps 5% in overall tourism visitation.
	o If an accident occurs, our city's name will be spread across North America as a "disaster area".	o "People will avoid the Falls entirely".
	o "Toxic waste" is a term which the public does not understand and may associate with the Love Canal.	o Such an association may encourage some potential visitors to forego trips to the Falls.
	o The meetings market, a highly competitive area of tourism business, would be negatively affected as a result of the image created by the presence of the OWMC facility.	

APPENDIX A

SUMMARY OF INTERVIEWS

NIAGARA FALLS

(Continued)

INTERVIEW TYPE	TYPE OF VIEW/CONCERN/IMPACT	MAGNITUDE/DEGREE OF IMPACT AS EXPRESSED BY INTERVIEWEE
Tourism attractions, hotels/motels and other related services	o Perceptions by investors of Niagara Falls as a suitable development area would be negatively affected.	o Plans currently being investigated for a delux hotel could be delayed/cancelled as a result of investor reluctance to commit funds on a uncertain environment.
	o Media coverage by Canadian and American press and television networks will keep the story in the news from the time Niagara Falls is announced as the site for the OWMC facility.	o Negative publicity would be the deciding factor for tourists considering various vacation destination alternatives.
	3. Economic	
	o Anything having an adverse impact on tourism would affect sales.	o Sales will decrease one-quarter to one-third if the same coverage is given to Niagara Falls as was given to the Love Canal.
	o There as an adverse impact on Niagara Falls as a result of the Love Canal.	o Tourism visitation could decrease by 10% to 15% as a result of the OWMC facility.
		o If an accident occurs, it could "wipe us right out".
		o Expansion plans will be put on hold for several years until the OWMC facility's impact has been fully assessed ($ value).
		o If negative publicity and our pollution result, visitation by tourists could be cut by more than half.

APPENDIX A

SUMMARY OF INTERVIEWS

NIAGARA FALLS

(Continued)

INTERVIEW TYPE	TYPE OF VIEW/CONCERN/IMPACT	MAGNITUDE/DEGREE OF IMPACT AS EXPRESSED BY INTERVIEWEE
Tourism attractions, hotels/motels, and other related services		o We will put our $5 million expansion plans on hold if the OWMC facility is introduced to Niagara Falls.
	o Visitation would be negatively affected if the OWMC facility is established in Niagara Falls.	o The impact would last "forever". o The impact would be for at least ten years.
	o If the quality of Lyon's Creek is affected, there would be a detrimental effect (on a particular business within close proximity of one Niagara Falls candidate site).	
	o Because of the southwesterly wind patterns, odours could be carried to the facility and harm business.	o Expansion plans would be reconsidered in light of the introduction of the OWMC facility (no $ value provided).
		o Expansion plans which would result in the hiring of 150 construction employees will be delayed. "If we don't expand, other tourism operations will not go ahead".
	o Economic advantages could accrue to the local community but would not be beneficial to the tourism industry.	o There would be no impact upon tourism.
		o Occupancy rates may increase over the short term (facility in close proximity to a candidate site).

APPENDIX A

SUMMARY OF INTERVIEWS

NIAGARA FALLS

(Continued)

INTERVIEW TYPE	TYPE OF VIEW/CONCERN/IMPACT	MAGNITUDE/DEGREE OF IMPACT AS EXPRESSED BY INTERVIEWEE
Tourism attractions, hotels/motels, and other related services	o The perception of foreign investors regarding Niagara Falls will be adversely affected. Where there is uncertainty, investors will not risk developing.	o The loss of tourism-related investment dollars in Niagara Falls will affect tourism on a long-term basis by curtailing growth and impeding the area's competitiveness with other vacation destinations.
	o Group tours will decline if the OWMC facility comes to Niagara Falls. Tour operators are extremely sensitive to uncertainty and would steer business elsewhere, or would confine their stay in Niagara Falls to a few hours rather than stay overnight.	o A tour operator has already stated that he will take his tour to Toronto for overnight stays, rather than to Niagara Falls, and will only visit the Falls on a day basis if the OWMC facility is sited in the city.
	o Day use tourism facilities/restaurants, retail and attractions will be harder hit than hotels/motels which turn away people in the summer season.	o Even within a decline in overall visitation, hotel occupancies won't decrease. However, with fewer visitors, overall expenditures will decline.
	o Many tourism facilities operate close to the margin as it is.	o Even a slight reduction in tourism could bankrupt some operators.
	o The tourism industry generates substantial tax dollars, employment and revenues within the city.	o The jeopardizing of the tourism industry would negatively affect the City as a whole.

APPENDIX A

SUMMARY OF INTERVIEWS

TOWNSHIP OF WEST LINCOLN

(Continued)

INTERVIEW TYPE	TYPE OF VIEW/CONCERN/IMPACT	MAGNITUDE/DEGREE OF IMPACT AS EXPRESSED BY INTERVIEWEE
I Public Sector	1. Future Tourism Development	
	o The selection of any site within Festival Country would result in a negative impact upon tourism. The sites within Festival Country have the potential to be "in the heart of the tourism area in 50 years and could be visually offensive."	o The impact upon tourism cannot be quantified.
	2. Transportation	
	o The propensity for traffic accidents to occur as a result of OWMC trucks carrying toxic waste would increase.	o If accidents were to occur, tourism would be damaged.
	3. Perception	
	o West Lincoln offers passive, scenic tourism experiences. The presence of the OWMC facility could damage tourists' perceptions of the area.	o Tourism traffic could decrease in the West Lincoln area.

APPENDIX A
SUMMARY OF INTERVIEWS
MILTON
(Continued)

INTERVIEW TYPE	TYPE OF VIEW/CONCERN/IMPACT	MAGNITUDE/DEGREE OF IMPACT AS EXPRESSED BY INTERVIEWEE
I Public Sector	1. General	
	o Information resulting from a tourism study for Halton Region which is currently being performed by a private consulting firm will not be made available for use in this Report until approved by Regional Planning Committee/Council (scheduled for early January 1985). An adequate assessment of tourism-related impacts resulting from the OWMC facility cannot be made by Laventhol and Horwath until the above-cited report is completed and released to us.	o Until the tourism study is complete and made public it is impossible to realistically assess tourism impacts which would result from placement of the OWMC facility on Milton's candidate sites.
	o There are no proposed tourism developments for the lands surrounding the proposed sites.	
	2. Environmental	
	o The facility would be visible from the Mount Nemo Conservation Area, Rattlesnake Point Conservation Area and the Bruce Trail.	
	o A proposed expansion which would link Glenorchie Park with the Bruce Trail through a major linear open space system might be jeopardized.	o Appeal of the area as a recreational tourism destination could be adversely affected.

APPENDIX A
SUMMARY OF INTERVIEWS
MILTON
(Continued)

INTERVIEW TYPE	TYPE OF VIEW/CONCERN/IMPACT	MAGNITUDE/DEGREE OF IMPACT AS EXPRESSED BY INTERVIEWEE
I Public Sector	o Should an air inversion occur, emissions from the site could affect the air quality of the area.	
	3. Perception	
	o People coming to the area for recreational/other tourism-related activities would be "scared away" if there were an incinerator.	o This impact on tourists could have a great impact upon the growth of Milton and upon tourism in terms of attendance at tourism attractions and special events in the vicinity.
	o An attempt by the Region of Halton to develop a "theme" and image which would attract tourism to Halton could be undermined by the OWMC facility which might be incompatible with the image being marketed. This issue could be further exacerbated if the Government of Ontario decides to advertise the OWMC facility as being state-of-the-art, i.e. increased attention could damage Halton's tourism marketing efforts.	o A reduction in tourism visitation and/or curtailing of growth in tourism visitation could result.
	o Tourists might perceive that Halton's rivers and shorelines were being polluted by the facility.	o The viability of potential waterfront theme park/attractions development could be adversely affected, thereby slowing down growth of Halton's tourism industry.

APPENDIX A

SUMMARY OF INTERVIEWS

MILTON

(Continued)

INTERVIEW TYPE	TYPE OF VIEW/CONCERN/IMPACT	MAGNITUDE/DEGREE OF IMPACT AS EXPRESSED BY INTERVIEWEE
II Private Sector	1. Future Tourism Development	
	o Milton's tourism growth potential could be damaged because of the OWMC facility's impact upon the recreational attributes offered by the area.	o The OWMC facility will not affect the success of future expansion plans unless water contamination occurs.
	o The existence of the OWMC facility could attract other types of industry which would be incompatible with tourism.	
	2. Safety	
	o With increased truck traffic carrying hazardous waste, the possibility of serious accidents would exist.	
	o Truck traffic generated by the OWMC facility would further impede access to the business operation.	
	o Safety and health hazards are of concern.	o If such hazards accompany the OWMC facility, tourism business would decline.
	3. Economic	
	o The quality of recreational amenities which currently attract tourists could be detrimentally affected.	o The market value of the property whose business is partly derived from tourism could be reduced.

APPENDIX B

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INFORMATION SOURCES

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APPENDIX B

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APPENDIX C
FACTORS FOR SITE SELECTION

FACTOR GROUPING:	**FACTOR:**
Impacts on Community and Recreation Features	Impact on Tourism Community (Economic Base)

FACILITY COMPONENT AFFECTED:

All Components

DEFINITION OF FACTOR:

This factor refers to the potential disruption of existing tourism and recreation operations in the community as the result of the development of a waste management facility. It also addresses the impact on future tourism development potential. The concern is with the change in demand for the tourism services (transient accommodation, food and beverage, campgrounds, golf courses and attractions, etc.) provided now and in the future.

RATIONALE/SIGNIFICANCE:

The development and operation of a hazardous waste management facility will bring about hearings which may create negative media attention regarding the "image" of the community as a tourism destination. This may result in a decrease in the volume of visitation and length of stay and therefore negatively impact community revenues and employment now and in the future.

INTERPRETATION/METHODOLOGY:

The assessment of this factor first requires a determination of the current level and extent of tourism development in the community,

APPENDIX C
FACTORS FOR SITE SELECTION
(Continued)

followed by a determination of tourism's role vis-a-vis all other industry sectors in the community. The potential decline in tourism resulting from a negative media image is estimated based on professional judgment and experience in other situations. Impact on tourism is then projected in terms of visitation, length of stay and investment results. Information was gathered through personal interviews with all tourism operators within six kilometres of the site (34 interviews), a sample of those in the surrounding community (38 interviews) and from the data and information available from case studies and in government and association files.

INDICATORS:

1. Decline in tourist visitation and resultant impacts upon community revenues and employment.

2. Impact upon tourism-related development plans.

3. Future tourism development potential for community.

COMMENTS/ASSUMPTIONS/LIMITATIONS:

Because we are not aware of any examples of a hazardous waste management facility being located within close proximity of a community highly dependent on tourism, the impact assessment was therefore based on our expert opinion, the level of impact created through media interest in hearings and the subjective opinion of those interviewed, i.e. owner/ operators or interested parties.

APPENDIX C

FACTORS FOR SITE SELECTION

(Continued)

FACTOR GROUPING:	FACTOR:
Impacts on Community and Recreation Features	Impact on Site Vicinity (Economic Base)

FACILITY COMPONENT AFFECTED:

All Components

DEFINITION OF FACTOR:

This factor refers to the potential disruption of individual existing and future tourism and recreation operations and developments within two kilometres of a waste management facility. The concern is with the potential for decreased visitation, lower occupancies, food and beverage receipts and/or a general reduction in the level of use of the individual property's amenities and facilities.

RATIONALE/SIGNIFICANCE:

The presence of a hazardous waste facility located in close proximity to a tourist facility may by virtue of its perceived danger lessen desire among tourists to stay overnight, eat meals or make use of other provided amenities and facilities on site. The visitation or use of these properties may be negatively affected by the changes in level of dust, odour, lighting, truck traffic or other unusual changes caused by the location of the hazardous waste management facility. Visual exposure to the waste management facility may also detract from the tourist image or attractiveness of the property and therefore further reduce its use resulting in a loss of revenues and/or employment.

APPENDIX C

FACTORS FOR SITE SELECTION

(Continued)

INTERPRETATION/METHODOLOGY:

The number of properties within two kilometres of the site was considered and more particularly their dependence on non-resident visitation and expenditure. Interviews were conducted with 15 individuals with operations within two kilometres of the candidate sites and 19 between two and six kilometres of the candidate sites.

Information provided by the owners/operators or interested parties of tourism and recreation properties determined current use level, revenue, employment, current and future expansion plans and perceptions as to the potential impact.

INDICATORS:

1. Number of tourists, occupancy rates, food and beverage receipts.

2. Number of tourist establishments affected by nuisance impacts (dust, odour, lighting, truck traffic).

COMMENTS/ASSUMPTIONS/LIMITATIONS:

Since there are very few examples of hazardous waste treatment facilities being located within two kilometres of a tourist facility, our assessment is based on the factual information available to us and our own expert opinion as tourism consultants.